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ABSTRACT

This report provides information on approved educational activities for nursing and other nonphysician health professions for which reimbursement is made to hospitals under the Medicare program. Information was summarized from an examination of existing data and a special study of the variations that exist in hospital educational activities. The report provides interpreted statistics on the following: types and numbers of educational programs; numbers of students supported or trained; fiscal and administrative relationships between the hospitals and affiliated schools; financial and other benefits that accrue to the hospitals as a consequence of having such programs; and the types of educational expenses that are being reimbursed. The report contains a brief summary of selected regulations and judicial decisions to show changes that have occurred in Medicare reimbursement for the cost of approved educational activities from Medicare's inception in 1965 to the present. The report reviews reimbursement of jointly operated educational programs. Detailed summaries of survey results by discipline are given. (KC)

REPORT TO THE CONGRESS ON NURSING AND OTHER NONPHYSICIAN HEALTH PROFESSIONS EDUCATIONAL PROGRAMS REIMBURSED UNDER MEDICARE

MARCH 1988

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Bureau of Health Professions

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PREFACE

This report provides information on approved educational activities for nursing and other nonphysician health professions for which reimbursement is made to hospitals under the Medicare program. It is submitted by the Secretary of Health and Human Services to the Congress in compliance with Public Law 99-272, the Consolidated Omnibus Budget Reconciliation Act of 1985.

The report addresses the following areas: the number and type of approved nonphysician educational programs and the number of students trained under each program, the administrative and fiscal relationships between provider hospitals and affiliated academic institutions, benefits which accrue to a hospital as a consequence of having a training program in its institution, and finally the types and amounts of expenses of such programs for which reimbursement is made.

Since its inception, the Medicare program has contributed significantly to the reimbursement of educational costs for nurses and other nonphysician health professionals. Changes in the magnitude of educational reimbursement and in the financing mechanisms used under Medicare have occurred during the past 20 years that have implications for the clinical education of health professionals. Information provided in this report should be of value as Medicare reimbursement policies are reviewed.

The report was prepared by the Division of Nursing and the Division of Associated and Dental Health Professions in the Bureau of Health Professions, Health Resources and Services Administration.

David N. Sundwall, M.D.
Administrator
Health Resources and Services Administration
Public Health Service
Department of Health and Human Services

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EXECUTIVE SUMMARY

This report has been developed in response to the requirements in Section 9202(c)(1) of P.L. 99-272 (the Consolidated Omnibus Budget Reconciliation Act of 1985). The law called for the Secretary to conduct a study of approved educational activities in nursing and other nonphysician health professions for which hospitals are reimbursed under Medicare. The report addresses: types and numbers of educational programs, numbers of students supported or trained, fiscal and administrative relationships between the hospitals and affiliated schools, financial and other benefits which accrue to the hospitals as a consequence of having such programs, and the types of educational expenses that are being reimbursed.

The report contains a brief summary of selected regulations and judicial decisions to show changes that have occurred in Medicare reimbursement for the cost of approved educational activities from Medicare's inception in 1965 to the present. Historically, the changes have occurred primarily through the regulatory process rather than by legislation. Further, the report reviews reimbursement of jointly operated educational programs.

The report summarizes findings based on an examination of existing data and the conduct of a special study of the variations that exist in hospital educational activities. The major study underlying the report was conducted by Applied Management Sciences under contract with the Bureau of Health Professions.

HCFA data for the second year of payments under the Prospective Payment System, abstracted from Medicare Cost Reports submitted by providers to the fiscal intermediaries, show that more than $700 million in educational costs, after cost allocation was reported by 843 providers of nursing and other nonphysician educational programs. The nursing program total was far greater than that of other nonphysician health professions education programs. Some $533 million was reported by 547 providers for nursing educational programs. Another $167 million was reported by 514 providers for other nonphysician health professions educational programs. As apportioned according to the Medicare share of patients, it was estimated that the actual reimbursement to hospitals amounted to approximately $226 million. In total, Part A Medicare payments to hospitals for the period covered by these data were about $42.7 billion.

The providers reporting costs for nursing and nonphysician health professions educational programs were located in both rural and urban areas, but most of the costs were incurred by hospitals in large metropolitan areas. All States had at least one provider reporting costs for nursing and/or other nonphysician health professions educational programs, but the Mid-Atlantic and East North Central regions accounted for nearly half of all reported costs. In the case of nonphysician health professions educational programs, however, the South Atlantic region had a heavier concentration of the reported costs than the Mid-Atlantic region.

While HCFA data provide an overall picture of total program costs, detailed information on the types or characteristics of the programs are not available in readily accessible form. Therefore, the Bureau of Health Professions initiated a study to collect the required information from hospitals. Fifteen

fiscal intermediaries (FIs), the auditing agencies for HCFA, were selected as the focus for the study. Widely dispersed geographically, these FIs were generally those with the largest number of hospitals and dollar reimbursements for these educational programs. Two hundred hospitals served by these FIs were selected for study. The selection was based on incorporating the broadest range of nursing and other nonphysician health professions educational programs affected by Medicare reimbursement.

The disciplines involved in pass through hospital reimbursement included a variety of nursing and other nonphysician educational programs. Nursing programs included basic and graduate registered nurse programs, practical nursing programs, and nurse anesthetist programs. Although hospital diploma programs predominated, there were large numbers of other hospital and academic sponsored nursing programs. Similarly, among the nonnursing disciplines covered, there were both hospital and academic sponsored programs. In addition to those disciplines specifically listed in the Medicare regulations (See Appendix A) training for EEG technologists, emergency medical technicians, histologic technicians, clinical pastoral therapists, and others were among those educational programs for which hospitals reported costs. Data were eventually collected on 199 hospitals reporting costs for an estimated 634 nursing and other nonphysician health professions educational programs.

The number of students involved in each of these programs varied both within and among disciplines. Among hospital sponsored programs, the median number of students per program was about 10. For the academic sponsored programs, the median number of students per clinical rotation group from the program was about six. Nursing programs tended to be larger than the others. Hospital sponsored basic educational programs for registered nurse licensure had a median enrollment of 85. Academic sponsored registered nurse educational programs had a median of 54 students per clinical rotation. To a great extent, differences in the size of the nursing and nonnursing programs explain the significant differences in overall costs reported.

For the most part, there were formal, written, agreements between academic programs and hospitals offering clinical rotations. These agreements covered such areas as supervision of the students, liability insurance, duration of the clinical rotation and the specialties involved in the rotation. Other areas that might be covered were the number and selection of students. In several cases hospitals received some payment from the academic institution. While this practice occurred rarely among the nursing programs it did occur in about one-quarter of the other programs that were studied.

Some hospital sponsored programs had affiliations with academic institutions. In some instances, the academic institution was part of the same health center, but in most cases, it was not. Registered nurse programs were most likely to have such an affiliation while other programs infrequently had such affiliations. Where one existed, there was generally a written agreement establishing the terms of the relationship. About one of five hospital sponsored programs affiliated with an academic institution paid the institution for the education of its students. Where hospitals did not pay the academic institution, the usual arrangement was for students to pay tuition to the academic institution directly.

Most hospital sponsored programs charged the students tuition. However, students from academic sponsored programs on clinical rotations rarely paid tuition to the hospital. While some hospital sponsored programs provided stipends to the students, this almost never occurred in nursing programs (except for nurse anesthetists), nor in radiation therapy technology and emergency medical technology. Except for the pharmacy residencies, students from academic sponsored programs rarely received stipends.

In the Applied Management Sciences study and other studies, program representatives and hospital administrators were likely to cite recruitment as the most important benefit of the educational program to the hospital. This was often borne out by the fact that large proportions of newly hired individuals from the respective disciplines came from programs connected to the hospital. Other important benefits cited were better patient care and the ability to obtain better qualified staff. Rarely were financial advantages or part-time employment of students indicated as benefits. For the most part, those interviewed believed that the benefits from having educational programs at the hospital were critical or very important.

The most prominent of itemized direct costs were faculty salaries. Such costs were cited for over 90 percent of hospital sponsored programs and for almost 60 percent of academic sponsored programs. Instructional materials were likely to be reported as direct costs for hospital sponsored programs. Academic sponsored programs were less likely than hospital sponsored programs to be identified with costs for student stipends, instructional materials, travel, and accreditation/certification.

The influence of faculty salaries on direct costs was reinforced by the findings of other studies, concluding that much of the variability in hospital reported costs stem directly from the extent to which the hospital pays faculty salaries.

Chapter I

INTRODUCTION

The rising cost of health care in general, and Medicare costs in particular, coupled with the continuing Federal deficit, a rapidly expanding elderly population, and ongoing pressures on the Medicare Hospital Insurance Trust Fund have raised questions about the open-ended policy of support under Medicare for health professions education. Although the exact annual amount of Medicare's support for health professions education is not available, the Medicare program paid hospitals approximately $2.4 billion in Fiscal Year 1985. As shown in Chapter 2, an estimated $226 million was paid to provider hospitals for the support of education for nursing and other nonphysician health professions.

The purpose of this report is to provide information on the nursing and other nonphysician health professions education programs reimbursed under Medicare as required by Public Law 99-272, Section 9202(c)(1). The law states:

"The Secretary of Health and Human Services shall conduct a study with respect to approved educational activities relating to nursing and other health professions for which reimbursement is made to hospitals under Title XVIII of the Social Security Act. The study shall address:

- The types and numbers of such programs, and number of students supported or trained under each program;
- The fiscal and administrative relationships between the hospitals involved and the schools with which the programs and students are affiliated; and
- The types and amounts of expenses of such programs for which reimbursement is made, and the financial and other contributions which accrue to the hospital as a consequence of having such programs."

Selected Legislation and Regulations on Health Professions Education Reimbursement

Review of Legislative Background. The Medicare program was established by amending the Social Security Act in 1965 to provide a coordinated approach to health insurance and medical care for the aged. Although not required by law, congressional intent indicated that the Medicare program should support the clinical training of physicians, nurses, and other health personnel:

> "Many hospitals engage in substantial educational activities, including the training of medical students, internship and residency programs, the training of nurses, and the training of various paramedical personnel. Educational activities enhance the quality of care in an institution, and it is intended, until the community undertakes to bear such education costs in some other way, that a part of the net cost of such activities

(including stipends of trainees as well as compensation of teachers and other costs) should be considered as an element in the cost of patient care, to be borne to an appropriate extent by the hospital insurance program." 1/

Approved educational activity is defined 42 C.F.R. 413.85(b) as a formally organized or planned program of study usually engaged in by providers in order to enhance the quality of patient care in an institution. For a complete listing of the specifically itemized nonphysician health education programs and their approving bodies see Appendix A. In addition to the specific listing, the regulations provide that appropriate consideration will be given by the Health Care Financing Administration to the costs of other educational programs not specifically included on the list.

Historically, changes in Medicare reimbursement for the cost of approved educational activities have occurred primarily through the regulatory process rather than by legislation. In order to provide a historical framework for the study, selected regulations and judicial decisions addressing educational reimbursement trends under Medicare are presented.

The June 1966 regulation (42 C.F.R. 405.421) implementing the Medicare Program defined a provider's allowable costs for purposes of Medicare reimbursement to include the net costs of approved educational activities. Net cost was defined as a provider's total direct and overhead (indirect) costs of approved educational activities. These costs included trainee stipends, compensation of faculty, and other direct and overhead costs associated with the educational program. Revenues the provider received from tuition or other sources were to be subtracted from these costs.

Approximately six years later, the former Department of Health, Education, and Welfare, by authority of Section 223 of the Social Security Amendments of 1972, established annual cost limits on reimbursement of certain "routine" hospital costs, primarily those costs associated with room, board and routine nursing care. An exception was allowed if a hospital could demonstrate it exceeded its funding limits because of the additional costs of educational activities. To the extent that a hospital could show its costs were atypical when compared to those of other hospitals of similar size and geographic locations, additional reimbursement would be allowed.

In 1979, the Department's continued recognition of education costs, including those for approved programs in nursing schools was reflected in the exclusion of the direct costs of approved education programs from the routine costs subject to the Medicare hospital cost limits. Reasonable education costs would continue to be reimbursed as provided for in the Health Care Financing Administration's Provider Reimbursement Manual. This same reimbursement policy of education costs under Medicare continues today for nursing and the other nonphysician health professions.

Approximately two years later, the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), P.L. 97-248, expanded the hospital routine cost limits to cover total inpatient operating costs. Ancillary and special care unit costs were

1/ 89th Congress, 1st session Senate Report No. 404, Part I, p. 36.

now included under these limits. TEFRA also established a new ceiling on the allowable annual rate of increase in total inpatient operating costs per case for inpatient services. These new limits did not apply to direct costs of approved education programs but applied to an increase in the indirect medical education adjustment.

Title VI of the Social Security Amendments of 1983 (P.L. 98-21) established the Prospective Payment System (PPS). This current method of hospital payment by the Medicare program is essentially based on predetermined rates for each of 471 Diagnosis Related Groups (DGRs) rather than on the pre-PPS cost reimbursement basis. The prospective payment legislation and regulations, however, continue to provide for special treatment of direct and indirect educational costs.

Regulations now at 42 C.F.R. 413.85(c), originally adopted January 3, 1984, (49 F.R. 1) amended the Medicare regulations to clarify that the costs of clinical training for students enrolled in programs other than those operated by the hospital were to be considered normal operating costs to be included in the DRG amounts. The distinction given between these programs and provider operated programs was that although these clinical activities did involve some hospital costs, the hospitals also received benefits from the students in their institutions.

At the present time, reimbursements are handled differently for physician education than for nurse and other nonphysician health professions education. Direct costs for the latter continue to be reimbursed on a reasonable cost "pass through" basis, while as a result of section 1886(h) of the Social Security Act as enacted by section 9202 of P.L. 99-272, the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), reimbursement for the direct costs of physician training is now made on the basis of hospital-specific amounts for each full-time equivalent (FTE) resident in an approved training program. The hospital-specific amount is updated periodically and was determined based on data from each hospital on its direct medical educational costs and the number of interns and residents in 1984. A hospital's Medicare payments are determined by multiplying its approved FTE resident amount by the number of its FTE residents, and then multiplying that product by the proportion of the total inpatient days used by Medicare patients. In addition to these payments for the direct costs of medical education, an additional payment is made to the hospital for indirect medical education costs. This payment is calculated using a ratio of the number of interns and residents to the number of beds in the hospital.

Although a one year limit on the amount the Medicare program would reimburse providers for their direct costs of approved medical education activities for cost reporting periods beginning on or after July 1, 1985 but before July 1, 1986 was proposed (50 F.R. 129 July 5, 1985), section 1886(h) overrode this regulation. While section 1886(h) set limits only on Federal reimbursement affecting the direct cost of graduate medical education, the intent to further examine the reimbursement for nursing and other nonphysician educational programs was indicated by the request for this study included in the COBRA legislation.

Joint Education Training Reimbursement. Reimbursement policies for joint education training programs (programs in which a hospital is used as a clinical site for a program operated fully or in part by an institution of higher education) continue to be an area of some confusion among the fiscal intermediaries. Prior to 1979, HCFA's Provider Reimbursement Manual stated that the costs for nursing and other educational activities should be borne by the community. If the community had not yet recognized and accepted this responsibility, HCFA policy called for Medicare to participate in the support of such an approved program only if the educational program was operated by the provider in conjunction with its patient care activities.

This policy statement was affected by the results of court decisions, principally the 1979 case of St. John's Hickey Memorial Hospitals Inc. V. Califano (599 F.2d 803). This decision held that the denial of reimbursement for a hospital's financial support of a joint educational training program for nurses was "erroneous and not supported by substantial evidence." The ruling emphasized that the requirements for a joint educational training program were satisfied when a provider hospital was engaged in educational activities as a result of a hospital's contract to participate in an educational training program. The Court also emphasized that in this case the provider originated the program, played a major role in developing the curriculum, and helped in selecting the extra clinical instructors needed to operate the program.

Relying on the Seventh Circuit Court's decision in the St. John's Hickey Memorial Hospital Case, district court decisions on similar facts have held that costs in support of joint nursing educational programs were allowable. HCFA's Provider Reimbursement Review Board (PRRB) decisions now follow the courts' findings on similar facts as well.

The 1986 Senate Committee on Appropriations [2/] also questioned the reimbursement policy with regard to reasonable costs for a nursing baccalaureate degree program conducted in the provider's facilities, where reimbursement was refused based on the fact that the program was operated with the assistance of a local educational institution. The Committee cited a similar situation to those mentioned earlier, which has received considerable attention, Good Samaritan Hospital and Medical Center in Oregon. The Committee interpreted the applicable regulation as ensuring that "the pass through of training costs is limited to programs contributing to the quality of patient care within the institution and necessary to meet the community's needs for health care personnel, and prevent use of the reasonable cost pass through provision as a device to shift the full costs of health care education conducted in and by educational institutions to the Medicare Program." The Committee requested HCFA to reinterpret its regulation to ensure, consistent with statutory law, that a provider "is not penalized when it seeks the assistance of a local educational institution to improve the quality of services to patients by strengthening an existing provider-operated training program."

In academic sponsored programs which are receiving financial or other types of support from a provider, the HCFA Manual developed prior to the initiation of PPS but apparently still in use, allows reimbursement for costs of the ,

[2/] 99th Congress, 1st Session, Senate Report. No. 99-151, p. 132.

clinical portion of training. Costs for the related classroom portion of the training are also allowable if the provider's support does not constitute a redistribution of nonprovider costs to the provider and the provider is benefitting from the support it is furnishing, e.g., achieving an adequate source of well qualified registered nurses, and the provider's support is less than the cost it would be expected to incur with its own program.

However, when HCFA implemented the Prospective Payment System, it promulgated a contrasting regulation to this policy. This regulation (42 C.F.R. 405.421 (d), now 42 C.F.R. 413.85(d)) states that activities not within the definition of allowable education costs include clinical training of students not enrolled in an approved education program operated by the provider. As cited in C.F.R. 412.113(b), these activities would be excluded from pass through payments. Although the regulation would govern over any inconsistent Manual provision, the apparent contradiction between what is contained in the Manual and this regulation has led to confusion on the part of fiscal intermediaries responsible for approving hospital reimbursements under Medicare.

In summary, here are a number of different ways in which health professions educational programs are treated as part of the Medicare reimbursement program. This report concentrates on the direct reimbursement mechanism, or "pass through," the one for nursing and other nonphysician health professions educational programs. The effect of these changing policies in relation to the regulations and the legislative intent is evident in the data collected for this study.

Approach and Study Design

In order to address the broad scope of this study, it was necessary to obtain data from a wide variety of sources including: HCFA, fiscal intermediaries, and records or other sources available only in the hospitals or within the programs themselves. The study requirements were complex. Significant problems in data access and retrieval, compounded by severe time and resource constraints, made it difficult to obtain the comprehensive data needed to fully address all of the issues and questions raised. Therefore, a study design based on a representative national probability sample of all programs and hospitals was infeasible and impractical. Rather, an approach was chosen which relied both on the results of a number of previously performed studies and the implementation of a new survey of a limited number of programs designed to address the variations and diversity which exist among hospital training programs. It was felt that this approach would contribute significantly to the body of knowledge.

The data contained in hospital Medicare Cost Reports (MCR) were of particular importance to the study. These data on hospital reimbursement for approved educational activities under Medicare were analyzed by the Bureau of Health Professions (BHPr) for use in the selection of a sample of hospitals to be studied. The data also were used to derive total educational costs for all hospitals being reimbursed by Medicare for nursing and other nonphysician health education training.

Additionally, this report incorporates relevant results of several other studies to strengthen findings from the survey of fiscal intermediaries and hospitals. Supplementary data were provided by a 1986 survey of allied health

program directors, undertaken by the Division of Allied Health Education and Accreditation of the American Medical Association. The Division, through its Committee on Allied Health Education and Accreditation (CAHEA) and in cooperation with program review committees, accredits educational programs in a variety of allied health educational areas.

The report also utilized information from a recent BHPr study performed by Lewin and Associates, which analyzed educational cost reimbursement policies under Medicare in nine hospitals. The Lewin study provided information on the process employed by hospitals in making decisions to offer health professions clinical education programs and the effects of Federal and other payment policies upon such decisions.

Another BHPr funded study by Mathematica Policy Research evaluated trends in clinical education among the allied health professions in the context of recent changes in the way in which hospitals are reimbursed for health services. The data were collected primarily through case studies of 22 allied health educational programs drawn from six professions and located in 4 geographic areas.

The primary data collection effort for this report and performed for the Bureau of Health Professions under contract by Applied Management Sciences, Inc. (AMS) was a survey based on a two stage study design which obtained information from a selected group of fiscal intermediaries and a sample of hospitals they serve. The data were collected through personal interviews and site visits.

Lastly, BHPr sponsored a workshop to assist in the development of survey instruments to be used in the data collection phase of this report. Participating in the workshop were key representatives of health professional associations and accrediting agencies most affected by the study (Appendix B). All general aspects of the proposed study were discussed as well as some specific observations concerning the fiscal and administrative relationships between the hospitals and the schools with which the programs and students are affiliated.

Participants in the workshop also addressed the possible ranges of types of expenses which might be included for reimbursement, and factors to consider as possible financial and other contributions which accrue to the hospital as a consequence of having such programs. Applied Management Sciences used a synopsis of the workshop findings to assist in the development of survey instruments.

Primary Data Collection. The field work for the survey carried out by AMS was performed in two phases. The first phase consisted of a survey of 15 fiscal intermediaries (FIs). A FI is an organization or a part of an organization (usually an insurance company) that provides claims processing, accounting, and auditing services to the Medicare program under contract. In making a selection of the Fiscal Intermediaries to be included in the study, it was found that in many States, a fiscal intermediary provided this service for an entire State. In some states more than one FI provided services to the hospitals in the State. In those States (California, Florida, and Pennsylvania) containing more than one FI, only one was chosen for study.

A sample of 15 out of a total of 57 fiscal intermediaries in 15 diverse States, was selected for study by BHPr. Primarily, the study attempted to cover FIs with the largest number of hospitals receiving reimbursement for nonphysician health professions education costs but also obtain as wide a geographic spread as possible. Table A lists the fiscal intermediaries selected for participation in the study.

Information about the audit and reimbursement practices employed for nursing and other nonphysician health professions education programs by the 15 FIs was obtained by the contractor. The FIs also were contacted to determine which hospitals were currently receiving educational reimbursement, since changes in such reimbursed hospitals occur frequently. In order to confirm the specific hospitals receiving reimbursement, the contractor supplied the fiscal intermediaries with the lists of those hospitals providing educational costs on the latest data tapes available from HCFA.

The information collected from the FIs was later used to create the sampling frame for a follow-up survey of hospitals. This second survey collected information from the hospitals on the number of students, fiscal and administrative relationships, program benefits, types of costs for which hospitals were reimbursed, and magnitude of reimbursement for health professions educational activities. Program directors and other representatives as well as hospital administrators were the principal sources of information for the second survey.

Medicare cost report data for FY 85 and FY 86 were collected from the FIs to construct the hospital sampling frame. In addition, the FIs also were asked to provide copies of the latest certification/accreditation for each educational program for which reimbursement was claimed.

The contractor selected hospitals for inclusion in the study according to five criteria employed in the following hierarchical order: (1) hospitals with multiple programs, (2) coverage of the educational programs specifically mentioned in the regulations, (3) representation from each of the 15 fiscal intermediaries, (4) diversity of program size based on amount of reimbursement and (5) geographic concentration. The intent of this sampling design was to obtain data on as many different programmatic disciplines as possible, even though some of the disciplines were found only in a small number of hospitals. The sampling process started with a frame of 456 hospitals, all of which had one or more reimbursed nursing or other nonphysician health professions educational program.

The selection procedures yielded an initial sample of 200 hospitals that contained educational programs for more than 30 health professions. Because radiography, medical technology, and registered nurse diploma programs had very high levels of representation in the sample, a decision was made to subsample from these three program types. Regardless of the sampling scheme employed in this study, it is important to understand that the samples were not designed to be representative of the United States population of hospitals which receive Medicare reimbursement for educational activities. Thus, it is not possible to generalize to the total U.S. population of hospitals or programs from the findings of this study. Nevertheless, a useful description of hospital sponsored health professions education is possible and will be presented later in this report.

Five questionnaires were developed by the contractor to be used as guides for the interviewer in the hospital. Different forms were designed for both hospital sponsored and academic sponsored programs since substantially more information was required from an academic sponsored program to describe the contract or formal agreement that existed between the hospital and the academic institution. Separate questionnaires were also developed for use in interviewing program representatives and hospital administrators in an effort to avoid duplication and to reduce respondent burden. Additionally, a "screener" form was developed to assist the interviewer in determining which programs were hospital sponsored or academic sponsored as well as collecting data on the number of programs and the nature of credentials awarded to program graduates. Financial information was obtained either from a representative of the hospital's financial unit, or a program representative.

The level of cooperation among the selected hospitals was excellent, with 97 percent agreeing to participate. Some 30 hospitals in the original sample were replaced because they no longer had educational programs that were reimbursed under Medicare. Five additional hospitals were replaced because it was impossible to schedule interviews at times when interviewers would be available. The replacement hospitals were selected from the same state as the non qualifying hospital, wherever possible.

In those hospitals which serve as clinical sites for multiple academic sponsored programs, on site interviewers were required to select a subsample of specific academic sponsored programs about which the program representative would be asked to provide information. Such multiple clinical rotations were identified by the interviewer from the screener questionnaire for all programs for which the hospital was claiming reimbursement. For example, if there were two programs in a discipline, one was chosen for the subsample; if there were three to five programs in a category, two were chosen for the subsample; and if there were six or more programs three were chosen for the sample. All subsampling of programs was made using a random number table.

All hospital based personal interviews were conducted between June 8 and July 10, 1987. The final responses contained a total of 199 hospitals and 359 programs. Of the programs studied, 126 were nursing programs and 233 were other nonphysician health professions programs. Slightly more than one-half of the programs (202) were hospital sponsored while the remaining 157 were clinical rotations of academic sponsored programs. Table A presents the distribution of hospitals in the final sample by fiscal intermediary.

TABLE A

DISTRIBUTION OF SAMPLE HOSPITALS BY FISCAL INTERMEDIARY

FISCAL INTERMEDIARY	TOTAL HOSPITALS WITH EDUCATIONAL PASS THROUGH		TOTAL HOSPITALS IN SAMPLE [1]	HOSPITALS WITH HOSPITAL SPONSORED PROGRAMS IN SAMPLE	HOSPITALS WITH ACADEMIC SPONSORED PROGRAMS IN SAMPLE
	N	%			
BLUE CROSS OF SOUTHERN CALIFORNIA	25	5.5	9	7	4
COLORADO HOSPITAL SERVICE	8	1.8	3	3	2
BLUE CROSS OF FLORIDA	22	4.8	6	6	1
HEALTH CARE SERVICE CORPORATION, ILLINOIS	45	9.9	22	16	7
BLUE CROSS OF MASSACHUSETTS, INC.	30	6.6	15	12	4
BLUE CROSS AND BLUE SHIELD OF MICHIGAN	36	7.9	18	14	9
BLUE CROSS AND BLUE SHIELD OF MINNESOTA	16	3.5	8	6	4
BLUE CROSS HOSPITAL SERVICE, INC. OF MISSOURI	29	6.4	12	8	5
HOSPITAL SERVICE PLANS OF NEW JERSEY	20	4.4	10	8	2
HOSPITAL CARE CORPORATION, OHIO	71	15.6	45	31	22
BLUE CROSS AND BLUE SHIELD OF OKLAHOMA	6	1.3	2	2	1
AETNA LIFE AND CASUALTY, PENNSYLVANIA	20	4.4	18	14	5
BLUE CROSS AND BLUE SHIELD OF TENNESSEE	21	4.6	4	2	2
GROUP HOSPITAL SERVICE INC., TEXAS	77	16.9	11	6	6
BLUE CROSS OF VIRGINIA	30	6.6	16	13	5
TOTAL	456	100.0 [2]	199	148	79

[1] The total of hospitals is smaller than the sum of the hospitals with Hospital Sponsored Programs and the Hospitals with Academic Sponsored Programs because some hospitals had both types of Programs.

[2] Due to rounding, percentages in this table may not equal exactly 100.0 percent.

Chapter II

REIMBURSEMENT UNDER MEDICARE FOR NURSING AND OTHER NONPHYSICIAN HEALTH PROFESSIONS EDUCATION PROGRAMS

The intent of the central data collection undertaken for this report was to augment the information already available on the characteristics and the role of educational programs in hospitals. While the collected data examined the items that went into the direct costs reported for an educational program, no attempt was made in the study to identify the overall hospital expenditures incurred in the operation of educational programs nor to determine the impact of the funds being reimbursed under Medicare.

The amount of reimbursement which a hospital receives for operating an educational program is derived from data included on the Medicare Cost Report (MCR). These data, as reported by the individual hospitals, are available in summary form from the Health Care Financing Administration in the Hospital Cost Reports Information System (HCRIS) Minimum Data Set. A summary of the data from the HCRIS data set is included in this chapter to provide a sense of the magnitude of the funds involved and the number and types of hospitals claiming reimbursement for nursing and/or other nonphysician health professions educational programs.

The costs involved in operating these programs which form the basis for the "pass through" amounts reimbursed under Medicare, appear in certain parts of the MCR. Copies of the relevant sections of the MCR are reproduced in Appendix C. The direct costs of operating the programs, such as faculty salaries and instructional materials, are listed in Column 5 of Worksheet A. Tuition and other program revenues are then subtracted, resulting in the net direct costs indicated in Column 7 of Worksheet A. A cost allocation process, shown in Worksheet B, Parts 1 and 2, is then used to allocate overhead costs such as administration, maintenance and utilities to the various activities reported. This, then, results in the fully allocated or fully loaded costs discussed below. Most of these costs are eligible for reimbursement under the pass through provision in proportion to the share of the hospital's activities devoted to treating Medicare patients. The final, actual reimbursement to the provider for all hospital sponsored educational programs is listed in line 101 of Worksheet D, Parts 1 and 2.

Most of the data reported here come from the HCRIS Minimum Data Set. This data set contains selected items from the MCRs, including some of the data reported on the worksheets mentioned previously. Not included as part of the HCRIS data set is the occupational categories itemized under the paramedical educational programs on Worksheet A. Therefore, the data are discussed under two major headings: "nursing" and "paramedical." Also, since the cost reports do not identify each educational program which the hospital may operate directly or have an arrangement with, the data do not reflect costs for any one program since a hospital may be involved with a number of different nursing programs or paramedical programs.

In addition, the data available from the cost reports and the HCFA summary data set contain only limited information on the individual hospital

characteristics. Therefore, data from other sources, such as the American Hospital Association's Annual Survey of Hospitals, were merged with data from HCFA to provide details of the characteristics of the hospitals reporting educational costs on the cost reports. Since matches could not be made in all instances, where it was necessary to use the merged file, there are a number of hospitals listed as "unmatched." Finally, since it was desirable to use the latest information available, the data reported here are taken from the MCRs as they are submitted by the providers to the fiscal intermediaries. Audited cost reports were not available at the time of writing for the period reflected in these data.

During the second year of the Medicare Prospective Payment System (PPS), which includes data covering the period October 1984 to September 1986 depending on the provider's fiscal year, 1,487 providers reported a total of about $4.3 billion in educational program costs after cost allocation. A total of $3.6 billion was reported for graduate medical education. 3/ (In addition, these providers received a payment of $1.2 billion, computed on the basis of the number of residents per bed, to cover the indirect costs of graduate medical education.) A total of $533 million was reported for nursing education, and $167 million were reported for paramedical education. Almost half of the 1,487 providers, 644, reported graduate medical education costs only. About a third reported costs for graduate medical and nursing and/or paramedical education while about one-quarter had nursing and/or paramedical education costs only. Where there were both graduate medical education costs as well as nursing and/or paramedical costs, the median share of the latter costs was 21 percent for each hospital. The average, or mean, per hospital was 30 percent.

Nearly all the costs of operating nursing and paramedical programs are incurred by short-term community hospitals. As can be seen in Table 1 about 78 percent of the costs are concentrated in voluntary hospitals. In the case of nursing education programs alone the proportion is slightly higher, 80 percent. Most of the costs are incurred by large hospitals. Hospitals with 300 or more beds accounted for 80 percent of the costs for nursing and paramedical programs; with 90 percent of the costs for paramedical programs in large hospitals and 76 percent of those for nursing education (Table 2). As shown in Table 3, the costs were nearly equally divided between members and non-members of the Council of Teaching Hospitals, although the number of member hospitals reporting such costs were far fewer than non-members. Member hospitals account for 43 percent of the nursing education costs and 70 percent of the paramedical education costs.

Providers reporting costs for nursing and paramedical education programs are heavily concentrated in certain regions and States. As shown in Table 4, the Mid-Atlantic and East North Central regions account for 47 percent of the reported costs. The distribution of nursing programs is similar, with the two regions accounting for 48 percent of the reported costs. However, for the paramedical programs, the South Atlantic along with the East North Central regions were the areas with the highest concentrations, accounting for nearly 60 percent of the costs. The three top States in terms of nursing education costs were Pennsylvania, Ohio, and Illinois, accounting for about 30 percent of the total. For the paramedical programs, Ohio, the District of Columbia,

3/ The data reported here excludes Puerto Rico.

and Pennsylvania were the top three areas, accounting for 28 percent of the total costs. Every State had at least one provider reporting costs for nursing or paramedical education. However, Hawaii reported no nursing education costs while New Hampshire and New Mexico reported no paramedical program costs (Table 6). Approximately 39 percent of the providers had only nursing programs, 35 percent had only paramedical programs, and 26 percent had both.

As can be seen in Table 7, providers reporting nursing or paramedical education costs were found in both rural and urban areas, but the bulk of the costs were incurred in large metropolitan areas. Approximately 47 percent of total costs, 44 percent of nursing program costs, and 56 percent of paramedical program costs were attributed to providers located in metropolitan areas having a population of at least 1 million.

The figures presented in tables 1-7 are the fully loaded costs of operating the education programs as reported in Worksheet B, Part I, line 103 of the Medicare Cost Report. Thus, these figures include both the net direct costs and the other allocated costs such as overhead costs.

For nursing programs, the net direct costs amounted to 43 percent of the total or fully allocated costs. However, the ratio of direct to fully allocated costs varied considerably across providers. For the typical provider with paramedical programs the ratio was much higher, nearly 72 percent. It is difficult to demonstrate why the two ratios were different since the HCRIS data do not contain details on the type of cost. However, after examination of Medicare Cost Reports and other materials obtained from a few hospitals, it appears that nursing programs have more students and often have separate buildings for the school of nursing or nursing student housing, whereas the paramedical programs have fewer students who use a relatively small amount of departmental space. The higher ratio for paramedical programs would appear to be consistent with this explanation.

Although the Medicare Cost Report contains all of the data necessary to measure the costs which are eligible for reimbursement as well as the data to measure the share of these costs attributable to Medicare patients and hence the amount of the payment actually made by the Medicare program, the data available for this chapter from the HCRIS Minimum Data Set are not quite as extensive. A somewhat crude method for estimating the Medicare payment for nursing and paramedical programs is to multiply the total educational program pass through payment by the proportion of fully loaded educational costs attributable to nursing and paramedical programs. The resulting figure will be accurate for providers that have only nursing or paramedical programs. It will also be accurate for other providers to the extent that their nonreimbursable costs are proportional across all types of educational programs.

Following this approach for the second year of PPS, the Bureau of Health Professions has estimated that over $226 million was paid to 836 providers for the costs of nursing and paramedical education programs. [4/] The typical

[4/] The number of providers differs slightly from the earlier count because data on the costs incurred for graduate medical education were not available

hospital received about $87,000 but many hospitals received much larger payments; so the mean is much larger, about $271,000. Approximately $175 million was paid to those providers which also reported graduate medical education costs, and $51 million went to providers that had only nursing or paramedical programs.

Estimates of the payment received by providers during the second year of the Medicare Prospective Payment System for the direct costs of operating nursing and paramedical programs are presented in Table 8. Although the State-by-State pattern is similar to the one displayed in Table 5, there are some differences. Certain providers in a few States may have more Medicare patients than others. Therefore, they receive payments that are a relatively greater proportion of their costs than the others receive since the purpose of the cost allocation procedure is to ensure that the Medicare program pays its share of the costs. For example, whereas Pennsylvania accounted for 11.8 percent of the total costs, it is estimated that Pennsylvania received 14.7 percent of the total Medicare reimbursement payment. Ohio has nearly equal proportions of the total costs and payments, 9.5 and 9.9 percent, respectively.

It is difficult to estimate changes in the costs over time because there are differences in the number of providers contained in the HCRIS data set. For both the first and second years of PPS, the data were reasonably complete as of October 1987 but many of the first-year cost reports were settled, whereas all of the second year reports remained "as submitted" by the providers. Although "as submitted" cost reports were also available for more than half of the providers for the third year, this sample may not be representative.

An analysis of the data from all providers with fully loaded costs in more than one year, including any providers with no costs in one of the years, suggests that nursing education costs fell by roughly 5 percent between the first and second years and remained about the same between years two and three. The decrease for paramedical education programs was greater, 16 percent, between years one and two, but there was an increase of 39 percent between years two and three. However, there are problems in assessing whether the cost increases reflect actual increases in generating the education programs or whether the providers are being more explicit in separating these costs from other cost centers, e.g., isolating the pharmacy residency training program costs from the pharmacy department budget. In any event, such increases are almost certain to be reflected in increased payments under the Medicare educational pass through.

There are a few providers with very large costs, and year-to-year changes in these costs were such that they affected the State and national picture presented in this chapter. One hospital that had extensive paramedical education activity in all three years of PPS showed an increase in costs from less than $9 million in years one and two to nearly $32 million in year three. Similarly, paramedical education costs reported by another provider rose from nearly $7 million in year one to over $15 million in year two.

These fluctuations in the data suggest that caution be used in interpreting this information as presenting the exact expenditures under Medicare for nursing and paramedical programs. The information, however, does provide a picture of the magnitude of the costs and expenditures involved in the reimbursement under Medicare for nursing and paramedical programs.

TABLE 1

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION

IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY TYPE OF CONTROL OF HOSPITAL

CONTROL	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
ALL PROGRAMS				
STATE	40	$76,951,770	$1,923,794	11.0
COUNTY	32	$31,739,226	$991,851	4.5
CITY	15	$9,247,171	$616,478	1.3
CITY/COUNTY	4	$4,735,823	$1,183,956	0.7
HOSP DISTRICT/AUTHORITY	39	$7,123,270	$182,648	1.0
CHURCH-OPERATED	194	$158,965,076	$819,408	22.7
OTH NOT FOR PROFIT	477	$388,050,870	$813,524	55.4
PARTNERSHIP	1	$24,149	$24,149	0.0
CORPORATION	18	$5,431,193	$301,733	0.8
UNMATCHED	23	$18,255,064	$793,698	2.6
ALL PROVIDERS	843	$700,523,612	$830,989	100.0
NURSING PROGRAMS				
STATE	27	$55,377,937	$2,051,035	10.4
COUNTY	25	$18,445,343	$737,814	3.5
CITY	9	$7,662,046	$851,338	1.4
CITY/COUNTY	3	$283,927	$94,642	0.1
HOSP DISTRICT/AUTHORITY	28	$5,539,985	$197,857	1.0
CHURCH-OPERATED	119	$126,838,177	$1,065,867	23.8
OTH NOT FOR PROFIT	309	$299,182,704	$968,229	56.1
PARTNERSHIP	1	$24,149	$24,149	0.0
CORPORATION	14	$4,815,398	$343,957	0.9
UNMATCHED	12	$15,289,483	$1,274,124	2.9
ALL PROVIDERS	547	$533,459,149	$975,245	100.0
PARAMEDICAL PROGRAMS				
STATE	20	$21,573,834	$1,078,692	12.9
COUNTY	14	$13,293,883	$949,563	8.0
CITY	9	$1,585,125	$176,125	0.9
CITY/COUNTY	3	$4,451,896	$1,483,965	2.7
HOSP DISTRICT/AUTHORITY	15	$1,583,285	$105,552	0.9
CHURCH-OPERATED	135	$32,126,899	$237,977	19.2
OTH NOT FOR PROFIT	297	$88,868,166	$299,219	53.2
PARTNERSHIP	0			
CORPORATION	6	$615,795	$102,633	0.4
UNMATCHED	16	$2,965,581	$185,349	1.8
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 2

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION

IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY BED SIZE OF HOSPITAL

	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
NUMBER OF BEDS				
ALL PROGRAMS				
UNDER 25 BEDS	2	$30,683	$15,342	0.0
25-49 BEDS	15	$540,313	$36,021	0.1
50-99 BEDS	26	$1,797,083	$69,119	0.3
100-199 BEDS	138	$39,567,459	$286,721	5.6
200-299 BEDS	147	$82,682,718	$562,467	11.8
300-399 BEDS	159	$124,274,554	$781,601	17.7
400-499 BEDS	122	$129,598,252	$1,062,281	18.5
500 OR MORE BEDS	211	$303,777,486	$1,439,704	43.4
UNMATCHED	23	$18,255,064	$793,698	2.6
ALL PROVIDERS	843	$700,523,612	$830,989	100.0
NURSING PROGRAMS				
UNDER 25 BEDS	1	$27,500	$27,500	0.0
25-49 BEDS	12	$414,240	$34,520	0.1
50-99 BEDS	21	$1,696,562	$80,789	0.3
100-199 BEDS	102	$35,902,842	$351,989	6.7
200-299 BEDS	93	$72,392,771	$778,417	13.6
300-399 BEDS	92	$102,702,690	$1,116,334	19.3
400-499 BEDS	76	$88,545,972	$1,165,079	16.6
500 OR MORE BEDS	138	$216,487,089	$1,568,747	40.6
UNMATCHED	12	$15,289,483	$1,274,124	2.9
ALL PROVIDERS	547	$533,459,149	$975,245	100.0
PARAMEDICAL PROGRAMS				
UNDER 25 BEDS	1	$3,183	$3,183	0.0
25-49 BEDS	3	$126,073	$42,024	0.1
50-99 BEDS	5	$100,521	$20,104	0.1
100-199 BEDS	59	$3,664,617	$62,112	2.2
200-299 BEDS	85	$10,289,947	$121,058	6.2
300-399 BEDS	105	$21,571,864	$205,446	12.9
400-499 BEDS	87	$41,052,280	$471,865	24.6
500 OR MORE BEDS	154	$87,290,398	$566,821	52.2
UNMATCHED	16	$2,965,581	$185,349	1.8
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 3

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION

IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM

BY MEMBERSHIP IN THE COUNCIL OF TEACHING HOSPITALS

	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
COUNCIL OF TEACHING HOSPITALS				
ALL PROGRAMS				
NON-MEMBER	626	$355,890,101	$568,515	50.8
MEMBER	217	$344,633,511	$1,588,173	49.2
ALL PROVIDERS	843	$700,523,612	$830,989	100.0
NURSING PROGRAMS				
NON-MEMBER	416	$306,105,106	$735,830	57.4
MEMBER	131	$227,354,043	$1,735,527	42.6
ALL PROVIDERS	547	$533,459,149	$975,245	100.0
PARAMEDICAL PROGRAMS				
NON-MEMBER	351	$49,784,995	$141,838	29.8
MEMBER	164	$117,279,469	$715,119	70.2
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 4

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION

IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY REGION

REGION	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
ALL PROGRAMS				
NEW ENGLAND	68	$56,289,487	$827,787	8.0
MID ATLANTIC	160	$150,226,547	$938,916	21.4
SOUTH ATLANTIC	119	$106,510,664	$895,048	15.2
EAST NORTH CENTRAL	185	$180,728,190	$976,909	25.8
EAST SOUTH CENTRAL	48	$35,833,462	$746,530	5.1
WEST NORTH CENTRAL	89	$73,096,888	$821,313	10.4
WEST SOUTH CENTRAL	105	$62,882,907	$592,885	9.0
MOUNTAIN	24	$6,234,171	$259,757	0.9
PACIFIC	45	$28,721,296	$638,251	4.1
ALL PROVIDERS	843	$700,523,612	$830,989	100.0
NURSING PROGRAMS				
NEW ENGLAND	41	$45,692,959	$1,114,462	8.6
MID ATLANTIC	111	$131,299,967	$1,182,883	24.6
SOUTH ATLANTIC	79	$60,799,026	$769,608	11.4
EAST NORTH CENTRAL	101	$127,201,521	$1,259,421	23.8
EAST SOUTH CENTRAL	34	$26,950,096	$792,650	5.1
WEST NORTH CENTRAL	65	$62,335,842	$959,013	11.7
WEST SOUTH CENTRAL	92	$55,915,309	$607,775	10.5
MOUNTAIN	11	$2,124,337	$193,122	0.4
PACIFIC	13	$21,140,092	$1,626,161	4.0
ALL PROVIDERS	547	$533,459,149	$975,245	100.0
PARAMEDICAL PROGRAMS				
NEW ENGLAND	42	$10,596,528	$252,298	6.3
MID ATLANTIC	96	$18,926,580	$197,152	11.3
SOUTH ATLANTIC	72	$45,711,638	$634,884	27.4
EAST NORTH CENTRAL	145	$53,526,669	$369,149	32.0
EAST SOUTH CENTRAL	24	$8,883,367	$370,140	5.3
WEST NORTH CENTRAL	57	$10,761,046	$188,790	6.4
WEST SOUTH CENTRAL	24	$6,967,598	$290,317	4.2
MOUNTAIN	16	$4,109,834	$256,865	2.5
PACIFIC	39	$7,581,204	$194,390	4.5
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 5

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY STATE

STATE	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
PENNSYLVANIA	91	$82,593,905	$907,625	11.8
OHIO	68	$66,249,682	$974,260	9.5
ILLINOIS	49	$55,540,567	$1,133,481	7.9
NEW YORK	42	$39,180,047	$932,858	5.6
MASSACHUSETTS	33	$35,598,675	$1,078,748	5.1
MISSOURI	26	$29,179,626	$1,122,293	4.2
NEW JERSEY	27	$28,452,595	$1,053,800	4.1
TEXAS	68	$25,617,178	$376,723	3.7
CALIFORNIA	32	$25,206,244	$787,695	3.6
MICHIGAN	29	$25,117,894	$866,134	3.6
ARKANSAS	13	$21,433,084	$1,648,699	3.1
INDIANA	17	$21,318,004	$1,254,000	3.0
VIRGINIA	32	$19,136,654	$598,020	2.7
FLORIDA	19	$18,468,324	$972,017	2.6
TENNESSEE	21	$17,784,526	$846,882	2.5
DSTRCT OF COLUMBIA	1	$17,755,031	$17,755,031	2.5
NORTH CAROLINA	19	$15,086,105	$794,006	2.2
LOUISIANA	15	$14,227,733	$948,516	2.0
ALABAMA	10	$14,064,864	$1,406,486	2.0
MARYLAND	18	$14,024,549	$779,142	2.0
WISCONSIN	22	$12,502,043	$568,275	1.8
GEORGIA	10	$12,153,706	$1,215,371	1.7
CONNECTICUT	18	$11,731,555	$651,753	1.7
IOWA	11	$11,293,034	$1,026,639	1.6
NEBRASKA	9	$9,845,470	$1,093,941	1.4
KANSAS	11	$9,648,297	$877,118	1.4
MINNESOTA	18	$7,582,473	$421,249	1.1
WEST VIRGINIA	10	$5,971,808	$597,181	0.9
COLORADO	6	$4,309,127	$718,188	0.6
MAINE	6	$3,549,611	$591,602	0.5
NORTH DAKOTA	6	$3,384,729	$564,122	0.5
RHODE ISLAND	5	$2,726,199	$545,240	0.4
KENTUCKY	10	$2,500,463	$250,046	0.4
OREGON	4	$2,497,744	$624,436	0.4
NEW HAMPSHIRE	3	$2,466,421	$822,140	0.4
SOUTH DAKOTA	8	$2,163,259	$270,407	0.3
SOUTH CAROLINA	7	$2,160,226	$308,604	0.3
DELAWARE	3	$1,754,261	$584,754	0.3
OKLAHOMA	9	$1,604,912	$178,324	0.2
MISSISSIPPI	7	$1,483,609	$211,944	0.2
WASHINGTON	8	$993,402	$124,800	0.1
UTAH	3	$825,675	$275,225	0.1
ARIZONA	4	$409,084	$102,271	0.1
MONTANA	9	$403,508	$44,834	0.1
NEW MEXICO	2	$286,777	$143,389	0.0
VERMONT	3	$217,026	$72,342	0.0
HAWAII	1	$18,906	$18,906	0.0
ALL PROVIDERS	843	$700,523,612	$830,989	100.0

TABLE 5 (CONTINUED)

COSTS OF NURSING EDUCATION PROGRAMS AFTER COST ALLOCATION
IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY STATE

STATE	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
PENNSYLVANIA	55	$69,183,271	$1,257,878	13.0
OHIO	43	$48,473,018	$1,127,279	9.1
ILLINOIS	29	$43,860,514	$1,512,432	8.2
NEW YORK	33	$35,537,691	$1,076,900	6.7
MASSACHUSETTS	23	$31,358,738	$1,363,423	5.9
MISSOURI	22	$27,349,774	$1,243,172	5.1
NEW JERSEY	23	$26,579,005	$1,155,609	5.0
TEXAS	62	$22,088,061	$356,259	4.1
ARKANSAS	13	$21,330,658	$1,640,820	4.0
CALIFORNIA	8	$18,797,762	$2,349,720	3.5
VIRGINIA	26	$15,769,175	$606,507	3.0
TENNESSEE	18	$15,592,154	$866,231	2.9
MICHIGAN	13	$15,411,272	$1,185,482	2.9
MARYLAND	13	$12,453,062	$957,928	2.3
LOUISIANA	10	$11,201,083	$1,120,108	2.1
INDIANA	7	$10,702,687	$1,528,955	2.0
IOWA	9	$9,605,730	$1,067,303	1.8
GEORGIA	7	$9,357,391	$1,336,770	1.8
WISCONSIN	9	$8,754,030	$972,670	1.6
ALABAMA	7	$8,725,306	$1,246,472	1.6
NORTH CAROLINA	12	$8,216,862	$684,739	1.5
NEBRASKA	6	$7,863,046	$1,310,508	1.5
CONNECTICUT	6	$7,359,141	$1,226,524	1.4
KANSAS	6	$7,155,102	$1,192,517	1.3
FLORIDA	8	$6,090,068	$761,259	1.1
MINNESOTA	12	$5,665,849	$472,154	1.1
WEST VIRGINIA	6	$4,149,931	$691,655	0.8
NORTH DAKOTA	4	$2,902,944	$725,736	0.5
MAINE	5	$2,645,194	$529,039	0.5
NEW HAMPSHIRE	3	$2,466,421	$822,140	0.5
DSTRCT OF COLUMBIA	1	$2,235,114	$2,235,114	0.4
OREGON	3	$1,901,159	$633,720	0.4
SOUTH DAKOTA	6	$1,793,397	$298,900	0.3
RHODE ISLAND	2	$1,696,363	$848,182	0.3
KENTUCKY	4	$1,443,988	$360,997	0.3
COLORADO	3	$1,327,934	$442,645	0.2
SOUTH CAROLINA	4	$1,306,231	$326,558	0.2
OKLAHOMA	7	$1,295,507	$185,072	0.2
DELAWARE	2	$1,221,192	$610,596	0.2
MISSISSIPPI	5	$1,188,648	$237,730	0.2
WASHINGTON	2	$441,171	$220,586	0.1
NEW MEXICO	2	$286,777	$143,389	0.1
ARIZONA	2	$256,380	$128,190	0.0
VERMONT	2	$167,102	$83,551	0.0
UTAH	1	$148,254	$148,254	0.0
MONTANA	3	$104,992	$34,997	0.0
HAWAII	0			
ALL PROVIDERS	547	$533,459,149	$975,245	100.0

TABLE 5 (CONTINUED)

COSTS OF PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION
IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM BY STATE

STATE	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
OHIO	53	$17,776,664	$335,409	10.6
DSTRCT OF COLUMBIA	1	$15,519,917	$15,519,917	9.3
PENNSYLVANIA	69	$13,410,634	$194,357	8.0
FLORIDA	15	$12,378,256	$825,217	7.4
ILLINOIS	36	$11,680,053	$324,446	7.0
INDIANA	17	$10,615,317	$624,430	6.4
MICHIGAN	19	$9,706,622	$510,875	5.8
NORTH CAROLINA	14	$6,869,243	$490,660	4.1
CALIFORNIA	28	$6,408,482	$228,874	3.8
ALABAMA	6	$5,339,559	$889,926	3.2
CONNECTICUT	14	$4,372,414	$312,315	2.6
MASSACHUSETTS	17	$4,239,937	$249,408	2.5
WISCONSIN	20	$3,748,013	$187,401	2.2
NEW YORK	15	$3,642,356	$242,824	2.2
TEXAS	10	$3,529,117	$352,912	2.1
VIRGINIA	15	$3,367,479	$224,499	2.0
LOUISIANA	9	$3,026,650	$336,294	1.8
COLORADO	6	$2,981,193	$496,866	1.8
GEORGIA	4	$2,796,315	$699,079	1.7
KANSAS	6	$2,493,195	$415,533	1.5
TENNESSEE	8	$2,192,372	$274,047	1.3
NEBRASKA	7	$1,982,424	$283,203	1.2
MINNESOTA	12	$1,916,624	$159,719	1.1
NEW JERSEY	12	$1,873,590	$156,133	1.1
MISSOURI	13	$1,829,852	$140,758	1.1
WEST VIRGINIA	8	$1,821,877	$227,735	1.1
IOWA	9	$1,687,304	$187,478	1.0
MARYLAND	9	$1,571,487	$174,610	0.9
KENTUCKY	8	$1,056,475	$132,059	0.6
RHODE ISLAND	5	$1,029,836	$205,967	0.6
MAINE	5	$904,417	$180,883	0.5
SOUTH CAROLINA	4	$853,995	$213,499	0.5
UTAH	2	$677,421	$338,711	0.4
OREGON	3	$596,585	$198,862	0.4
WASHINGTON	7	$557,231	$79,604	0.3
DELAWARE	2	$533,069	$266,535	0.3
NORTH DAKOTA	5	$481,785	$96,357	0.3
SOUTH DAKOTA	5	$369,862	$73,972	0.2
OKLAHOMA	4	$309,405	$77,351	0.2
MONTANA	6	$298,516	$49,753	0.2
MISSISSIPPI	2	$294,961	$147,481	0.2
ARIZONA	2	$152,704	$76,352	0.1
ARKANSAS	1	$102,426	$102,426	0.1
VERMONT	1	$49,924	$49,924	0.0
HAWAII	1	$18,906	$18,906	0.0
NEW HAMPSHIRE	0			
NEW MEXICO	0			
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 6

NUMBER OF PROVIDERS IN EACH STATE WITH NURSING OR PARAMEDICAL EDUCATION COSTS

STATE	NURSING ONLY	PARAMED ONLY	BOTH	TOTAL
ALABAMA	4	3	3	10
ARIZONA	2	2		4
ARKANSAS	12		1	13
CALIFORNIA	4	24	4	32
COLORADO		3	3	6
CONNECTICUT	4	12	2	18
DELAWARE	1	1	1	3
DSTRCT OF COLUMBIA			1	1
FLORIDA	4	11	4	19
GEORGIA	6	3	1	10
HAWAII		1		1
ILLINOIS	13	20	16	49
INDIANA		10	7	17
IOWA	2	2	7	11
KANSAS	5	5	1	11
KENTUCKY	2	6	2	10
LOUISIANA	6	5	4	15
MAINE	1	1	4	6
MARYLAND	9	5	4	18
MASSACHUSETTS	16	10	7	33
MICHIGAN	10	16	3	29
MINNESOTA	6	6	6	18
MISSISSIPPI	5	2		7
MISSOURI	13	4	9	26
MONTANA	3	6		9
NEBRASKA	2	3	4	9
NEW HAMPSHIRE	3			3
NEW JERSEY	15	4	8	27
NEW MEXICO	2			2
NEW YORK	27	9	6	42
NORTH CAROLINA	5	7	7	19
NORTH DAKOTA	1	2	3	6
OHIO	15	25	28	68
OKLAHOMA	5	2	2	9
OREGON	1	1	2	4
PENNSYLVANIA	22	36	33	91
RHODE ISLAND		3	2	5
SOUTH CAROLINA	3	3	1	7
SOUTH DAKOTA	3	2	3	8
TENNESSEE	13	3	5	21
TEXAS	58	6	4	68
UTAH	1	2		3
VERMONT	2	1		3
VIRGINIA	17	6	9	32
WASHINGTON	1	6	1	8
WEST VIRGINIA	2	4	4	10
WISCONSIN	2	13	7	22
ALL PROVIDERS	328	296	219	843

TABLE 7

COSTS OF NURSING AND PARAMEDICAL EDUCATION PROGRAMS AFTER COST ALLOCATION

IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM

BY METROPOLITAN STATISTICAL AREA STATUS

METROPOLITAN STATISTICAL AREA STATUS	NUMBER OF PROVIDERS	TOTAL EDUCATION COSTS	AVERAGE COST	PERCENT OF TOTAL COSTS
ALL PROGRAMS				
NON-METROPOLITAN AREA	148	$41,891,743	$283,052	6.0
UNDER 100,000 POP	20	$12,732,767	$636,638	1.8
100,000 TO 250,000	108	$76,371,660	$707,145	10.9
250,000 TO 500,000	101	$96,377,947	$954,237	13.8
500,000 TO 1,000,000	151	$126,673,096	$838,895	18.1
1,000,000 TO 2,500,000	155	$161,016,446	$1,038,816	23.0
OVER 2,500,000	137	$167,204,889	$1,220,474	23.9
UNMATCHED	23	$18,255,064	$793,698	2.6
ALL PROVIDERS	843	$700,523,612	$830,989	100.0
NURSING PROGRAMS				
UNDER 100,000 POP	14	$10,945,615	$781,830	2.1
100,000 TO 250,000	67	$63,151,715	$942,563	11.8
250,000 TO 500,000	65	$81,228,798	$1,249,674	15.2
500,000 TO 1,000,000	95	$95,712,986	$1,007,505	17.9
1,000,000 TO 2,500,000	93	$114,193,735	$1,227,890	21.4
OVER 2,500,000	87	$121,251,073	$1,393,690	22.7
UNMATCHED	12	$15,289,483	$1,274,124	2.9
ALL PROVIDERS	547	$533,459,149	$975,245	100.0
PARAMEDICAL PROGRAMS				
UNDER 100,000 POP	15	$1,787,152	$119,143	1.1
100,000 TO 250,000	72	$13,219,945	$183,610	7.9
250,000 TO 500,000	70	$15,149,149	$216,416	9.1
500,000 TO 1,000,000	94	$30,960,111	$329,363	18.5
1,000,000 TO 2,500,000	109	$46,822,711	$429,566	28.0
OVER 2,500,000	83	$45,953,816	$553,660	27.5
UNMATCHED	16	$2,965,581	$185,349	1.8
ALL PROVIDERS	515	$167,064,464	$324,397	100.0

TABLE 8

ESTIMATED NURSING AND PARAMEDICAL EDUCATION PASSTHROUGH PAYMENT IN EACH STATE IN THE SECOND YEAR OF THE MEDICARE PROSPECTIVE PAYMENT SYSTEM

STATE	NUMBER OF PROVIDERS	ESTIMATED PASSTHROUGH PAYMENT	AVERAGE PAYMENT	PERCENT OF TOTAL PAYMENT
PENNSYLVANIA	89	$33,299,965	$374,157	14.7
OHIO	68	$22,467,761	$330,408	9.9
ILLINOIS	49	$21,827,706	$445,463	9.6
MASSACHUSETTS	33	$13,419,013	$406,637	5.9
NEW YORK	40	$12,823,101	$320,578	5.7
MISSOURI	26	$11,614,650	$446,717	5.1
NEW JERSEY	27	$11,159,215	$413,304	4.9
VIRGINIA	32	$6,805,797	$212,681	3.0
CALIFORNIA	32	$6,210,808	$194,088	2.7
TENNESSEE	20	$6,163,714	$308,186	2.7
TEXAS	67	$6,131,906	$91,521	2.7
INDIANA	17	$6,081,344	$357,726	2.7
MICHIGAN	29	$6,068,423	$209,256	2.7
NORTH CAROLINA	19	$4,745,988	$249,789	2.1
ARKANSAS	13	$4,583,857	$352,604	2.0
CONNECTICUT	18	$4,374,295	$243,016	1.9
IOWA	11	$4,192,368	$381,124	1.9
DSTRCT OF COLUMBIA	1	$4,125,006	$4,125,006	1.8
NEBRASKA	9	$3,968,978	$440,998	1.8
LOUISIANA	15	$3,856,126	$257,075	1.7
GEORGIA	10	$3,585,750	$358,575	1.6
WISCONSIN	22	$3,557,205	$161,691	1.6
MARYLAND	18	$3,249,852	$180,547	1.4
FLORIDA	19	$3,063,741	$161,250	1.4
MINNESOTA	18	$2,219,219	$123,290	1.0
KANSAS	11	$2,213,903	$201,264	1.0
WEST VIRGINIA	10	$2,063,683	$206,368	0.9
NORTH DAKOTA	6	$1,310,314	$218,386	0.6
MAINE	6	$1,304,323	$217,387	0.6
RHODE ISLAND	5	$1,227,143	$245,429	0.5
NEW HAMPSHIRE	3	$1,082,360	$360,787	0.5
ALABAMA	9	$1,042,048	$115,783	0.5
COLORADO	6	$928,180	$154,697	0.4
SOUTH DAKOTA	8	$871,304	$108,913	0.4
KENTUCKY	10	$699,436	$69,944	0.3
SOUTH CAROLINA	7	$695,814	$99,402	0.3
OREGON	3	$695,758	$231,919	0.3
DELAWARE	3	$674,737	$224,912	0.3
OKLAHOMA	9	$492,075	$54,675	0.2
MISSISSIPPI	7	$323,253	$46,179	0.1
ARIZONA	4	$243,200	$60,800	0.1
WASHINGTON	8	$223,691	$27,961	0.1
UTAH	3	$186,533	$62,178	0.1
MONTANA	9	$135,914	$15,102	0.1
NEW MEXICO	2	$99,235	$49,617	0.0
VERMONT	3	$96,180	$32,060	0.0
HAWAII	1	$4,474	$4,474	0.0
ALL PROVIDERS	835	$226,209,345	$270,909	100.0

Chapter III

OVERVIEW OF SURVEY OF NURSING AND OTHER NONPHYSICIAN HEALTH PROFESSIONS EDUCATIONAL PROGRAMS REIMBURSED UNDER MEDICARE

As pointed out earlier, the primary data acquisition activity undertaken for this report was a collection of information from 15 fiscal intermediaries (FI) and 199 hospitals selected from among the 456 hospitals with pass through reimbursement for nursing and other nonphysician health professional education programs which were serviced by those 15 FIs. The information obtained, collected through personal discussions with FI and hospital representatives, was designed to provide insight into the areas of inquiry itemized by the Congress in section 9202(c) of Public Law 99-272.

This chapter presents some of the key findings of this study that relate to the fiscal intermediaries and to the hospitals and educational programs studied within that sample. It is important to reemphasize that these results are not meant to be generalized to the total U.S. population of hospitals, but rather to describe the nature and range of programs which exist. More explicit information about these subjects in relation to particular disciplines appears in Chapter IV.

Fiscal Intermediary Practices. In examining the FI practices concerning the administration of the pass through reimbursement for nursing and other nonphysician health professions, it was learned that the pass through was the smallest in dollar terms of the three adjustments to the basic prospective payment system. Although exact amounts were unavailable, the adjustments for the costs of capital and graduate medical education expenses were significantly larger.

The fiscal intermediaries indicated that their audit activities focus on the larger payment items, i.e., the costs of capital and graduate medical education expenses, which they judge more likely to result in significant savings, unless specific changes occur which would call attention to these areas. Such triggers include information in the hospital's board of directors' minutes that show a change in program status and changes in reported costs larger than certain threshold amounts. (Typical thresholds require that a change be greater than 10 percent of the item in question and greater than 0.1 percent of the hospital's total costs.) Thus, because of the smaller dollar amounts involved, FIs devote a smaller proportion of their resources and attention to the details of the nursing and other nonphysician health professions pass through implementation.

Certification files which refer to approvals obtained by educational programs from appropriate accrediting agencies were examined for 130 hospitals being served by 14 FIs. (One FI was omitted because its State had been reimbursing hospitals for Medicare costs under a special, State specific system that did not require fiscal intermediaries to have or examine certifications.) These hospitals contained a total of 279 programs. Certifications were readily available for 168 of these; although 1 out of 5 certifications were found to be out of date.

Application and interpretation of rules and regulations by FIs varied substantially. For example, FIs were queried about their actual practices regarding pass through reimbursement of education programs operated by academic institutions. Eleven of the 15 fiscal intermediaries followed the Provider Reimbursement Manual, Section 404.2 B and approved pass through reimbursement of education programs operated by such institutions. Two FIs appeared to be applying the criteria for the classroom portion of academic sponsored programs to reimbursement of the clinical portion, that is costs are allowable if they do not constitute a redistribution of non-provider costs to the provider.

One FI, in line with regulations in 42 CFR 405.421, allowed reimbursement for programs operated by the academic unit of an academic/medical complex, but not for programs operated by the academic institution unrelated to the hospital. In contrast, one FI denied reimbursement for programs operated by the academic unit of an academic/medical complex on the grounds that the hospital's reported costs were the product of a related party transaction.

With respect to the suitability of a particular education program for pass through reimbursement, FIs generally applied a standard that a profession be part of the health care process. The fiscal intermediaries also indicated that they rarely had to exercise judgment on the appropriateness of an unfamiliar certifying body since, most often, a State board education certifying program or a national certifying agency such as CAHEA would be responsible for program certification.

Educational Programs for Which Hospitals Obtain Pass Through. A total of 634 educational programs in 199 hospitals was included in the sample. After subsampling, detailed information was obtained from 359 programs, of which, 202, or slightly more than one-half, were hospital sponsored programs with a median number of 10 students per program. The remaining 157 programs in the sample were clinical rotations of academic sponsored programs with a median number of 6 students. Nursing programs totaled 126, or about one-third of those in the sample, and programs in other nonphysician health professions, numbered 233.

The 359 programs studied in the sample offered several types of credentials to their graduates. In general, the academic sponsored programs awarded degrees, and the hospital-sponsored programs awarded certificates and diplomas. However, some hospitals were part of a degree granting institution or had degree granting privileges. Two-thirds (135) of the hospitals in the sample had at least one nursing program. Seventy-three of the 135 hospitals that provided nursing education also provided at least one program of other nonphysician training. Sixty-four hospitals provided non-nursing, nonphysician training only.

Variations existed in the geographic distribution of the hospitals surveyed. The largest group of sampled hospitals was in the North Central Region and the smallest group in the West region which was represented by only 12 hospitals.

Distribution of Hospitals in Sample

Region	Hospitals	Percent
Northeast	43	22
North Central	105	53
South	39	19
West	12	6
Total	199	100

Fiscal and Administrative Relationships between Hospitals and Academic Institutions. Hospital sponsored programs may interface with academic institutions to augment instructional resources available at the hospital. Whereas, the provision of clinical experiences in hospital settings is a key component of the curriculum of academic sponsored programs.

About 71 percent, or 144, of the hospital sponsored programs in the sample reported having no formal relationship with an academic institution. Those that did, however, had written agreements with their affiliates. The hospital sponsored nursing programs, however, were much more likely to have an academic affiliation and almost all that did had written agreement with their affiliates. Seventy-five percent of the other nonphysician health professions education programs with affiliates also had written agreements.

Among the hospital sponsored programs with academic arrangements, 11 out of 58 such programs paid the academic institutions for the education provided to students in the program. Otherwise, the usual arrangement was for students to pay the schools directly.

About one-half, or 106, of the hospital sponsored programs sent their students to other facilities for part of their clinical training. Thus, a hospital might serve as a clinical site for a program sponsored by another hospital. This practice was far more common among nursing programs than among programs in other health professions and may be reflective of the diversity of settings in which nurses work.

As noted above, provision of clinical experience in a hospital setting as a complement to classroom instruction is a key component of the curriculum of many academic sponsored education programs for nursing and other nonphysician health professions. This relationship is often formalized in a written agreement between the academic institution and the hospital. Over 90 percent of the academic sponsored programs had formal, written contracts with hospitals. The overwhelming majority of these contracts covered supervision of students and liability insurance. A large number of agreements also covered the duration of clinical rotations; specialties to be taught; the number of students; and the selection of the students. Fewer of the agreements covered financial relationships and resource exchanges.

In nearly one-half of the academic sponsored programs studied, the academic institutions sent faculty to the hospital to supervise students. Nonetheless, hospital personnel retained primary responsibility for supervision or teaching of students in the majority of clinical rotations.

Payment from the academic institution to the hospital was made in only about 15 percent of the individual clinical rotations studied. This practice was seldom found among nursing rotations, but was found in about 25 percent of the clinical rotations of the other health professions educational programs. In very few of the clinical rotations were students charged tuition by the hospital or paid stipends.

In nearly 40 percent of the clinical rotations, there was an exchange of services between the academic institution and the hospital. These exchanges were more common in nursing clinical rotations than for clinical rotations in other health professions. A variety of services were exchanged, including library privileges, tuition reductions, in service training, and continuing education.

Benefits of Having Various Types of Programs in Hospitals. Representatives of nursing and other nonphysician health professions educational programs were asked to indicate the most important benefit their program rendered for the hospital. The most common response among program representatives concerned recruitment of employees for the hospital. This response was given by 74 hospital sponsored programs and 62 academic sponsored programs in the sample, representing about 40 percent of such programs. The median hospital sponsored program reporting recruitment as its major program benefit had been the source for fully 60 percent of recently hired hospital employees in the profession for which it trained students. Even among hospital sponsored programs with other benefits named as primary by the representatives, the program served as a major source of recently hired employees within their hospitals. The proportion of recently hired employees coming from clinical rotations of academic sponsored programs was somewhat lower than for hospital sponsored programs, with only 25 percent of such employees coming from the program.

Better patient care was the second most common response to the question about a program's most important benefit and was cited as the most important benefit in 44 hospital sponsored programs and 21 academic sponsored programs in the sample. Other responses included, "obtaining better qualified staff," "motivating current staff," and "source of up-to-date techniques."

Representatives of both hospital and academic programs were also asked to indicate the presence and rank order of 11 specific program benefits. In addition to recruitment, the following program benefits were reported by most representatives: enhanced staff quality; the opportunity to observe potential employees before hiring them; savings on new employee orientation time and costs; motivation of existing staff; servicing as a source of in service training; and enhancement of the hospital's reputation.

It is important to note that the program representatives rarely claimed financial benefits for their programs. Likewise, income generated by the program was rarely reported as a benefit. Indirect financial benefits, such as work performed in the hospital by students as part of their training and student part-time labor, were among the least frequently cited benefits.

In addition to the program representatives' views, the study obtained the opinions of hospital administrators regarding the benefits of programs in their hospitals. Hospital administrators cited recruitment as the major program benefit in more than one-half of the hospital sponsored programs in the sample and in about 40 percent of the clinical rotations of academic sponsored programs in the sample.

The data collected show a direct relationship between the hiring of employees from hospital based educational programs and the importance the hospital administrators placed upon the educational program as a recruitment resource. For those cases where the administrators with hospital sponsored programs cited recruitment as the most important program benefit, the median hospital had about one-half of newly hired employees from graduates of the program. If another benefit was cited by the administrator, the median hospital had about ⅞ of 10 newly hired employees from graduates of the program.

In addition to those indicating recruitment, other hospital administrators cited the provision of better qualified staff; motivation of existing staff; and care given to patients as the most important benefit to their hospitals.

The information on benefits gathered in this survey is corroborated by a recently completed study carried out by Mathematica Policy Research, under a contract with the Bureau of Health Professions (BHPr). This study evaluated trends in clinical education of allied health professionals, within the context of changes in hospital reimbursement during the 1980's. Information was collected on 22 allied health educational programs in 6 professions and within 4 geographic areas. The study found that among the major benefits of providing a clinical education site, students were a significant source of new recruits, thereby reducing the cost to the hospital of recruiting and orienting new employees. Some respondents believed that students improved productivity by providing a source of part-time labor. Other commonly cited benefits were: maintenance of staff technical skills; development of supervisory and managerial skills; and effects upon departmental morale. Generally, benefits were believed to outweigh costs, though few respondents had attempted to measure either precisely.

Results of the 1986 CAHEA Program Directors Survey, sponsored by the American Medical Association, were in agreement with the findings of the other studies. Among allied health program directors in hospitals receiving Medicare reimbursement for educational programs, three out of five indicated that the recruitment of graduates was a very important reason for participating in the educational program. Providing community service was indicated by more than one-half of such program directors as a very important reason for participating in such programs. Another reason indicated by a substantial proportion of program directors in the CAHEA study was student/staff interaction, which was cited as very important by more than two out of five program directors. Obtaining services from students was given as a very important reason by only one out of ten program directors.

Types of Cost Incurred. Faculty salaries were the most frequently reported type of costs, with 90 percent of hospital sponsored programs reporting this expense item in the Medicare Cost Report. The next most frequent response

consisted of costs for instructional materials, which was cited in over one-half of the hospital sponsored programs. Other commonly reported types of costs consisted of: administrative and support salaries; equipment; supplies; and accreditation/certification fees, which accounted for costs reported by about one-third of the hospital sponsored programs. Student stipends were mentioned as a cost in about one of four hospital sponsored programs.

Nearly two-thirds of hospital sponsored programs charged tuition to students. Programs in radiography and professional nursing programs were the most numerous ones charging tuition. About 25 percent of all programs charged tuition of $2,500 or more with about the same proportion charging tuition of $500 or less. Nursing programs tended to have higher tuition than the other health professions. Nearly 30 percent, 59, of the hospital sponsored programs paid their students a stipend during their clinical training. The payment of a stipend was most common among pharmacy residency, dietetic residency, and nurse anesthetist programs.

Costs reported for clinical rotations of academic sponsored programs were less likely to include faculty salaries than hospital sponsored programs. However, in nearly three out of five instances where there was an academic sponsored program, faculty salaries were a cost item. The hospitals were also less likely in the case of academic sponsored programs to report costs for student stipends, instructional materials, travel, and accreditation/certification fees.

Lewin and Associates in its analysis of educational cost reimbursement policies under Medicare, carried out under BHPr contract, corroborates the above findings. The Lewin study, a series of case studies of nine hospitals found that much of the variability in hospital reported costs of education depends on the extent to which the hospital, rather than the school, bears the cost of faculty salaries. In hospital run allied health as well as diploma nursing schools, the cost elements consisted of faculty salaries, materials, and the cost of recruiting students and maintaining accreditation. The study also found that the direct cost elements of hospital run allied health programs also included student stipends. The structure of programs in which the hospital provides only clinical opportunities to students from a separate educational institution reduces the cost of these programs to the hospital.

The Mathematica Policy Research study found that the major costs cited by respondents were salaries and related costs for coordinating and supervising clinical education. Minor costs included equipment, supplies, liability insurance, and stipends (including housing and subsistence.)

The hospital sponsored programs in the Applied Management Sciences sample had an annual median net direct cost of approximately $80,000, while the clinical rotations of academic sponsored programs had a median net direct cost of $33,000 per rotation. In general, the nursing programs had much higher net direct costs than did the programs of the other health professions. The differences reported in costs of programs may be largely due to program size, as the median cost per student in hospital sponsored programs was quite similar--about $8,400 for nursing programs of all types and about $8,000 for programs in other nonphysician health professions.

The methods employed for allocation of each type of cost for the educational

programs were also studied. Among hospital sponsored programs which reported faculty salaries as a cost, about one-half of the programs allocated these costs on the hospital's Medicare Cost Report by the proportion of faculty time spent in the program. In the other one-half of the programs, faculty were full-time in the program and no allocation was necessary. For instructional materials, hospital records of purchase of such materials for the program were utilized as an allocation method by nearly all of the hospitals reporting.

In those academic sponsored programs for which costs were reported for faculty salaries, allocation by faculty time was the method employed in about two-thirds of the programs. No allocation was necessary in the 15 percent of such programs where faculty were full-time.

Program costs reported on the Medicare Cost Report were analyzed for all hospitals served by the 15 fiscal intermediaries, and not only for those hospitals included in the sample. Net direct costs for the nonphysician education programs, after deductions for items such as tuition and before the allocation of such items as overhead were approximately $152 million. Of the $152 million, $105 million was for nursing programs of all types. For the 199 sample hospitals, the net direct costs were over $100 million.

Based on all hospitals served by the 15 FIs, nursing programs excluding those for practical nursing, represented over $90 million or nearly 60 percent of the total $152 million reported on the MCRs. Diploma programs preparing for registered nurse practice represented over one-half of the $105 million or $57.1 million.

The allied health and other nonphysician health professions training programs represented nearly $48 million in total reported costs for all hospitals serviced by the 15 fiscal intermediaries. The total reported costs for radiography programs of $9 million and medical technology programs of $8.3 million were far larger than those for other programs. The cost figures for these two disciplines may be understated because of the large amount reported for programs in which the specific profession could not be determined. Dietetic internships, respiratory therapy programs, and pharmacy residencies were the other program categories for which total reported costs exceeded $1 million. The net direct costs of the programs in the 199 hospitals were slightly over $100 million. The nursing programs accounted for $70 million of that total and the other nonphysician programs, $31 million.

Chapter IV

DETAILED DISCIPLINE SUMMARIES OF SURVEY RESULTS

This chapter provides detailed information on nursing education programs and each of the other nonphysician educational programs for which data were collected in the survey. The material presented addresses the questions posed by Congress in specific terms for each discipline. The topics discussed include: the numbers and types of programs in the sample, fiscal and administrative relationships found, financial and nonfinancial benefits reported, and types and amounts of costs reimbursed under Medicare.

Nursing Education

The two different ways in which hospitals participate in nursing education -- through directly operating a program or through serving as a clinical site for an academic sponsored program were covered by pass through reimbursement in the hospitals surveyed by Applied Management Sciences. On an overall basis, while the hospital-controlled program was most prevalent several decades ago, such programs represent a relatively small proportion of all programs preparing for both registered and practical nursing practice today. According to the latest data available, among programs preparing for registered nurse practice, only about 16 percent of the total programs are hospital controlled. For practical nursing programs, the proportion was even lower, about 7 percent of the total. For both the registered nurse basic programs and the practical nurse programs the primary sponsors are academic institutions.

In addition to basic programs preparing individuals for registered nurse or practical nurse licensure, nurse anesthetist and some graduate nursing programs were also covered by the costs reported by the hospitals. Currently, there are about 2,900 nursing educational programs. About 1,490 are basic programs preparing for registered nurse licensure; 200 are master's or doctoral programs; 90 are non military nurse anesthetist programs; and about 1,130 are practical nursing programs. From the earlier data in this report on the number of hospitals reporting costs for nursing education on the cost reports, it can be seen that a relatively small proportion of all these programs would be included in the costs reported by the hospitals. Those data showed, however, that the larger portion of the pass through costs reported by the hospitals was for nursing programs of varying kinds.

Numbers and Types of Programs. Since the data available from the cost reports filed by the hospitals for Medicare reimbursement do not identify the specific kinds of nursing programs covered, the information collected by Applied Management Sciences is particularly relevant to the determination of the kinds of nursing programs included for Medicare reimbursement.

The study methodology did not call for a complete census of all hospitals reporting nursing education costs. Also, rather than obtaining information on all the nursing programs in the sample hospitals, the decision was made to use the resources in money and available time to study as many different kinds of programs in as many different hospitals as possible. Thus, since diploma

programs, for the most part the hospital sponsored ones, were very numerous in the study hospitals, only 36 of them were included in the in depth study review. In addition, if a hospital served as the base for clinical rotation assignments from more than one academic sponsored program, only one or two might be selected for in depth review.

Therefore, the data provided are indicative of the types of nursing programs for which direct reimbursements are sought rather than reflective of a distribution, or representative sample, of all such programs. Information was gathered on a total of 126 nursing educational programs for which hospitals sought reimbursement under Medicare. The distribution of these according to type follows:

	Total	Hospital sponsored	Academic sponsored
Registered nurse			
Diploma	36	36	--
Associate degree	7	1	6
Baccalaureate	33	1	32
Graduate	3	--	3
Nurse Anesthetist	16	11	5
Other 1/	4	4	--
Practical nurse	27	17	10
Total	126	70	56

As the data in the table show, there are instances where a program is based in the hospital, receives its support from the hospital, yet is empowered by the State to grant a degree. While the AMS study included two such programs in its purview, there are a few others like those in existence.

Number of Students. Student enrollment in these nursing programs was varied. Among the 38 hospital sponsored basic nursing educational programs for registered nurse licensure, the median enrollment was 85, with the middle 50 percent of the programs ranging between 63 and 135. Hospital-based nurse anesthetist programs' median number of students was 12. For academic-based nurse anesthetist programs, the median number of students per clinical rotation was 9. For registered nurse programs other than nurse anesthetist, which were academic sponsored, the median number of students per clinical rotation was 54. That number, of course, reflects only those students from the particular program that were present in the hospital during that rotation.

The practical nursing programs had fewer students than the basic registered nurse programs. The median number of students in the hospital based practical nursing programs in the sample was 22; in academic based ones, it was 16 per clinical rotation.

1/ Three of these provided in service training to hospital staff and one provided a degree completion program to nurses on hospital staffs, both its own and other hospitals, in conjunction with a local university.

Fiscal and Administrative Relationships. Hospital sponsored basic nursing educational programs preparing for registered nurse licensure were most likely to have an arrangement with an academic institution to carry out part of the educational program. Only 5 of those studied did not. In about half the programs with such arrangements the hospital paid the academic institution for the services provided to its students. In the other half the students paid tuition directly to the academic institution. Most often the arrangements between the hospital and the academic institution were specified by contract or other written agreement. In addition, other relationships existed between the hospital and the academic affiliate such as the provision of adjunct faculty status to hospital program faculty, having dual faculty appointments, joint committee responsibilities, and interlocking directorships.

Practical nursing programs and nurse anesthetist programs that were hospital sponsored were less likely to have academic institution affiliation. Only 3 out of the 17 hospital sponsored practical nursing programs and 4 out of the 11 nurse anesthetist programs had academic affiliates. For the most part, the students involved in these programs paid any tuition due the academic institution.

In those instances where the hospital served as the site for clinical rotation for the academic sponsored programs, the hospital and the academic institution most often had written agreements. This was the case in 34 of the 41 surveyed situations where the hospitals provided clinical rotations for students from academic sponsored registered nurse programs. These agreements tended to cover areas such as supervision of students, liability insurance, specialty areas for clinical rotation, duration of rotations, number and selection of students.

In only one instance did an academic sponsored program make direct payment to the hospital for the student clinical experiences. In most instances, the academic institution sponsoring the program sent faculty to supervise and/or instruct the students. In addition, in most cases, hospital personnel also had some supervisory responsibility. In 9 of the hospitals there was "primary" responsibility. In two instances, the hospitals provided some funds to the academic institution. In both these cases the academic institution programs evolved out of hospital diploma programs and these payments were intended to cover deficits the academic institution incurred in operating the nursing program. One of these hospitals indicated that the amount provided to the academic institution was lower than the deficit the hospital had when it operated the program. In a third case, where the hospital was legally a part of the university and the university "owned the provider ID," the full net deficit incurred by the university nursing school was charged to the hospital.

Written agreements were also prevalent between the hospitals providing clinical experiences and both the academic sponsored practical nursing programs and nurse anesthetist programs. The agreements generally covered the same areas as those of the registered nurse programs. All practical nurse programs sent their own faculty for student clinical training in hospitals and, although hospital personnel had some supervisory/teaching responsibility, none had "primary" responsibility. None of these academic institutions reimbursed the hospitals. Three out of the five academic based nurse anesthetist programs sent faculty with their students. In one of these cases

the hospital paid the faculty. However, these faculty actually provided staffing for a number of the operating rooms.

Financial and Nonfinancial Benefits. The ability to recruit personnel was of major importance to the program representatives and administrators when they identified benefits of having educational programs tied to hospitals. It was mentioned by most program representatives and hospital administrators in connection with registered nurse basic and graduate programs, and practical nurse programs, and by about half the hospitals in the case of nurse anesthetist programs.

This benefit was borne out to some extent by the data on how many of their newly hired staff came from the educational program. Among the hospital sponsored registered nurse programs, the median hospital obtained half its new staff from that source. The "clinical rotation" programs seemed to yield less, about one out of five. However, a hospital may have more than one such program and the collective yield may be higher. For the practical nursing programs, the median hospital indicated that about half its new recruits came from that source. Among the hospitals with nurse anesthetist programs or affiliations, 60-70 percent of the new recruits came from these programs.

Other benefits that 80 percent or more of the representatives of registered nurse programs saw as resulting from their programs included obtaining better qualified staff, having a chance to observe potential employees before hiring them, motivating existing staff, serving as a source of up-to-date techniques, and enhancing the hospital's reputation. Overall, however, while the individuals interviewed saw many benefits, they did not view these programs as a source of income nor as a source of part-time employees. In a few instances where the hospital saw the students as a source of part-time employment, the study data showed that the students were hired in that capacity.

A similar distribution of benefits was noted in the practical nursing programs. Here, too, income or the students as a source of employees were rarely cited as a benefit. Students as a source of labor was cited as a benefit in about half the nurse anesthetist programs.

The benefits of the registered nurse programs were rated as "critical" to the hospital by 71 percent of the program representatives in the hospital sponsored programs and all the others in this group rated them as "very important." Less than half of the hospital program representatives of academic sponsored programs rated the benefits of the program in the hospital as "critical." About one out of five said these were "somewhat important" while the remaining ones stated they were "very important."

The vast majority of the practical nurse hospital sponsored program representatives rated the benefits as "very important" with the remaining ones rating them "critical." Only two representatives of academic sponsored practical nursing programs saw them as "critical." The remaining ones were equally divided between a rating of "very important" and "somewhat important."

The rating of "critical" was given in only a few of the hospital sponsored nurse anesthetist programs but in all but one of the academic sponsored programs. In the other instances, they were rated as "very important."

Types and Amounts of Expenses. The Applied Management Sciences study examined the various expenses incurred by the hospital underlying the figures reported on the MCR. The MCR data incorporated in the AMS study related to the net direct costs after deductions for such items as tuition and before the allocation of such items as overhead. All the hospital sponsored basic registered nurse programs had tuition charges for the students, while 13 of the 17 hospital sponsored practical nurse programs had tuition charges. The hospital sponsored nurse anesthetist programs were less likely to charge tuition. There were 5 such programs among the 11 in the study; one of these charged tuition in the initial phase of the course but not in the later part when the students were actually provided stipends. Among the academic based programs, there was one registered nurse program in which the student paid tuition to the hospital.

As might be expected, the most significant program expense was that of faculty salaries. Where such expenses were incurred, they were most likely to represent the majority of the costs of the program reported on the MCR. For all of the hospital sponsored registered nurse programs faculty salary costs were reported. They were also reported for 15 out of the 17 hospital sponsored practical nurse programs and all but one of the 11 nurse anesthetist programs. While faculty salaries were less likely to be reported for the academic sponsored programs, more than half the registered nurse programs, almost half the practical nurse programs, and all but one of the nurse anesthetist programs were reported as having faculty salary costs.

Although less significant in terms of overall costs, pay for time spent in administering/coordinating and providing clerical support for the program was also an area of expense reported by a large number of hospitals. This area was less likely to be an expense in nurse anesthetist programs and academic sponsored practical nursing programs.

Instructional materials, travel costs for students and faculty, cost of equipment used in the program, and accreditation fees were the other expense items reported by a majority of the hospitals with hospital sponsored registered nurse programs. For those hospitals affiliated with academic institution registered nurse programs, there was no single area other than faculty and/or administrative salaries that a majority of the hospitals reported as program expenses on the MCR. However, about one quarter of them reported as expenses pay for the time nonfaculty clinical staff or supervisors might have spent in teaching students. Where this was an expense, it tended to be a significant one, in that half of the hospitals indicated that at least 65 percent of the reported costs were due to that item.

In the case of hospital sponsored practical nursing programs, instructional materials and equipment tended to be the other areas for which expenses were reported by a majority of the hospitals. For hospital sponsored nurse anesthetist programs, in addition to the salary areas mentioned earlier, the majority of the hospitals reported expenses for instructional materials, travel, supplies, accreditation fees, and student stipends. With the exception of the nurse anesthetist programs, the provision of student stipends was not a prevailing practice among nursing programs. None of the basic and graduate registered nurse programs paid student stipends and only two of the 27 practical nurse programs did so. Student stipends were paid by the hospitals in eight nurse anesthetist programs, seven hospital sponsored

programs and one academic sponsored program. Where these stipends were being paid, they were not an insignificant portion of the costs reported.

The median net total direct cost reported for the registered nurse hospital sponsored programs in the sample was $533,000 while for one clinical rotation of an academic sponsored program, it was $120,000. There was very wide variation in the net total direct cost figures reported for academic sponsored clinical rotations ranging from a low of $200 to over $1,000,000.

The median net total direct cost for the hospital sponsored practical nursing programs in the sample was about $167,000. The median net total direct cost reported for a clinical rotation of an academic sponsored practical nursing program was $19,000. For hospital sponsored nurse anesthetist programs, the median net total direct cost reported was $83,000. A much higher median, $340,000, was reported for the academic sponsored programs. However, in this case, AMS speculates that the unusual pattern shown by these rates might be a function of the small number of cases in the sample.

In reviewing any of these data on net total direct costs, it should be pointed out that these figures neither reflect the total costs attributed to the program since they do not include such items as overhead nor the amount of money reimbursed under Medicare since that is dependent upon the proportion of patients who are Medicare patients. The information in Chapter II provides a discussion of the various levels of cost figures.

Cytotechnology

Cytotechnologists are trained medical laboratory technologists who work with pathologists to detect changes in body cells which may be important in the early diagnosis of cancer or other diseases. This is done primarily through microscopic examination of tissue samples to screen slide preparations of body cells for abnormalities in structure.

Types of Programs and Students. Only three hospitals with cytotechnology programs were found among the hospitals surveyed. One was a hospital sponsored program with five students and two were clinical rotations of academic sponsored programs with two and three students, respectively.

Fiscal and Administrative Relationships. The hospital sponsored cytotechnology program did not have arrangements with an academic institution to carry out part of its educational program. Both hospitals with clinical rotations of academic sponsored programs had formal, written agreements with their academic affiliates. In both cases, the agreements covered the supervision of students, duration of clinical rotations, specialties to be taught, and financial relationships. In both programs, hospital staff were responsible for supervising students.

Financial and Nonfinancial Benefits of Programs to Hospitals. The program representative of the hospital sponsored cytotechnology program reported that obtaining better qualified staff was the most important benefit of the program to the hospital. In the clinical rotations of academic sponsored programs, program representatives reported that recruitment of personnel and motivation of existing staff were the chief benefits. The administrator of the hospital

with its own hospital sponsored cytotechnology program indicated that recruitment of personnel was the most important benefit. In the hospitals with clinical rotations, one administrator identified the ability to obtain better qualified staff as the chief benefit, while the other administrator stated that motivating existing staff was the most important benefit.

Types and Amounts of Expenses Reported on Medicare Cost Report. Because the hospital sponsored cytotechnology program was being phased out there were no costs reported for 1987. Both of the cytotechnology clinical rotations reported faculty salaries as program costs. Faculty salaries were responsible for nearly all of the reported total program expenses.

Dietetic Internships

A dietetic internship is a post-baccalaureate clinical experience usually of 6 to 12 months duration. Internships are designed to prepare entry level dieticians using planned instruction and assignments in a clinical setting. Many programs offer graduate credit or a master's degree. Each dietetic internship is accredited by the Commission on Accreditation of the American Dietetic Association and provides an area of emphasis (general, management, clinical or community) compatible with the resources available to the program. There are currently 104 accredited dietetic internship programs in the United States.

Types of Programs and Students. There were 15 dietetic internship programs included in the sample. Thirteen were hospital sponsored while two were academic sponsored clinical rotations. The typical hospital sponsored program had nine students. The largest had 20 students while the smallest contained 4 students. Two clinical rotation programs each had one student.

Fiscal and Administrative Relationships. Only one of the 13 hospital sponsored dietetic internship programs in the sample, a program in an academic health center, had arrangements with an academic institution. However, 11 programs sent interns to other hospitals or health care facilities as part of their training. Ten of these had written agreements with their affiliates. In both clinical rotations of academic sponsored dietetic internship programs, there were formal written agreements between the hospital and the academic institution. Both agreements covered the selection and supervision of students.

Financial and Nonfinancial Benefits of Programs to Hospitals. Three directors of hospital sponsored dietetic internship programs indicated that recruitment of personnel was the most important benefit of the program to the hospital. The same three hospitals recruited a large percentage of their new dieticians from their own internship program. Four program directors indicated their chief benefit consisted of hospital staff time saved as a result of the work performed by interns. Representatives of clinical rotations of academic sponsored programs, mainly hospital directors of dietary services, considered savings on orientation costs and support for the hospital's educational mission to be the chief benefits.

Six hospital administrators of hospital sponsored programs considered personnel recruitment to be the most important benefit. In addition,

obtaining better qualified staff, providing better care for patients and supporting the hospital's teaching mission were also considered to be benefits.

Types and Amounts of Expenses reported on Medicare Cost Report. Twelve of 13 hospital sponsored dietetic internship programs reported faculty salaries as program expenses on the MCR. The cost of instructional material was the only other expense category that was reported by a majority of hospital sponsored programs. In the two academic sponsored dietetic internship programs, only salaries and instructional materials were reported as program costs.

The median hospital sponsored program reported annual expenses of about $53,000. The programs reporting faculty salaries as an expense item indicated that this item represented a median of nearly four-fifths of total expenses with a range of 40 to 100 percent of total expenses. For the two clinical rotations of academic sponsored programs, faculty salaries also were the largest component of total costs.

Medical Technology

Medical technologists develop data on the blood, tissues, and fluids in the human body by using a variety of precision instruments. In addition to the skills possessed by medical laboratory technicians, medical technologists perform complex analyses and correction of errors. Besides assuming responsibility for accurate results of tests, medical technologists establish or monitor quality control programs and design or modify procedures as necessary. Educational programs consist of at least one year of professional/clinical education. The American Society of Clinical Pathologists and the American Society of Medical Technology in coordination with the Committee on Allied Health Education and Accreditation of the American Medical Association are responsible for development and monitoring of accreditation standards.

Types of Programs. There were 19 hospital sponsored medical technology programs and 12 hospitals with clinical rotations of academic sponsored programs in the sample. The hospital sponsored programs generally awarded certificates to graduates. All of the academic sponsored programs were operated by four year colleges and universities and awarded bachelor's degrees. The 12 hospitals with clinical rotations reported 51 separate programs, with several hospitals receiving students from multiple academic institutions. In hospitals with multiple programs, a subsample of 22 out of the 51 clinical rotations was taken.

Hospital-sponsored programs in the sample had a range of between 3 and 10 students with a median of 6 students. Among academic sponsored clinical rotations, the median number of students per program was one per program. The largest had 12 students.

Fiscal and Administrative Relationships. Two of 19 hospital sponsored programs included in the sample had arrangements with outside academic institutions to carry out part of their program.

All 22 clinical rotations of academic sponsored medical technology programs

had written agreements between the hospitals and the academic institution. Every agreement covered the supervision of students and numbers of students to be trained. Generally, but not universally, agreements covered liability insurance, financial relationships, duration of rotation, selection of students, and the specialties to be taught. Less frequently, agreements covered reciprocal staff appointments, student health insurance, and the attendance of the hospital coordinator at university meetings.

In nearly all cases, hospital personnel retained primary responsibility for supervising the students during their clinical rotations. Five hospital sponsored programs charged tuition while another five paid student stipends. Fourteen hospitals with clinical rotations charged their students tuition, ranging between $400 and $2,500, for the clinical portion of their education.

Financial and Nonfinancial Benefits to the Hospital. Both AMS and CAHEA surveys indicate personnel recruitment as the major benefit to the hospital of having medical technology programs reimbursed by Medicare. Eight directors of hospital sponsored programs indicated that recruitment of personnel was the most important benefit. Other important benefits cited consisted of better quality of care, motivation of existing staff, and obtaining better qualified staff.

Twelve administrators of institutions with hospital sponsored programs indicated that recruitment was the most important benefit. Three indicated obtaining better qualified staff as the most important benefit for their hospitals.

Six administrators of hospitals with clinical rotations of academic sponsored programs indicated recruitment as the chief benefit, while five cited obtaining better qualified staff, and four indicated motivating staff performance as their chief benefit.

The part-time labor supplied beyond the time spent in training also appears to be an important benefit to the hospital. Medical technology students worked part-time in 15 of the 19 hospitals with hospital sponsored programs and in 16 of the 22 sampled academic sponsored programs.

These results are corroborated in the data on Medicare reimbursed medical technology programs included in the 1986 CAHEA Program Directors Survey. This survey found that two-thirds of the program directors of medical technology programs considered recruitment of graduates as very important to the program. In addition, more than one-half of the program directors stated that providing community service was very important to the program. About 40 percent of medical technology program directors also indicated that student/staff interaction was very important to the hospital.

Types and Amounts of Expenses Reported on Medicare Cost Report. Faculty salaries were the most frequently reported expense item on the MCR. Nearly all hospital sponsored programs reported this item, which accounted for 26 to 100 percent of total costs for each program. In the clinical rotations of academic sponsored programs, faculty and staff salaries were the major program costs. In 14 rotations, salaries accounted for over 75 percent of direct costs. In another eight rotations, salaries accounted for 50 to 65 percent of the direct cost, with materials and supplies accounting for the remainder.

The median net total direct cost of a hospital sponsored medical technology program, as reported on the Medicare Cost Report, was approximately $68,000 a year, with the cost of the middle 50 percent of programs ranging from $42,000 to $78,000. The median reported cost of a clinical rotation of an academic sponsored program was $39,000 a year, with the middle 50 percent of programs ranging from $24,000 to $78,000.

Occupational Therapy

Occupational therapy is the application of purposeful, goal oriented activity in the evaluation, diagnosis, and treatment of persons impaired by physical illness or injury, emotional disorder, congenital disability or the aging process. Occupational therapists provide education and training in daily living tasks, guidance in selection and use of adaptive equipment, and guidance in adapting physical environments for the handicapped. The American Occupational Therapy Association in collaboration with the Committee on Allied Health Education and Accreditation of the American Medical Association is jointly responsible for the development of minimum educational standards and accreditation of specific programs.

Types of Programs and Students. Seven hospitals in the sample received educational pass through under Medicare for occupational therapy programs. Six had 25 clinical rotations of academic sponsored programs. Nearly all programs conferred a bachelor's degree upon graduation. The final sample of 11 clinical rotations reported a median number of 3 students per program. The smallest rotation had a single student and the largest clinical rotation contained 30 students.

Fiscal and Administrative Relationships. Formal agreements between the hospitals and the academic institutions were found in 10 of the 11 clinical rotations included in the final sample. All agreements covered the supervision of students and liability insurance. The number of students in the clinical rotation was covered in eight agreements, with six agreements covering student selection. Primary responsibility for supervising students during the clinical rotations rested with the hospital in all cases.

Financial and Nonfinancial Benefits of the Program to the Hospital In occupational therapy clinical rotations, 4 of 11 program representatives (supervisors of occupational therapy) indicated source of up-to-date techniques as the most important benefit. Three program representatives indicated the ability to obtain better qualified staff as the main benefit. Other benefits cited included recruitment of personnel, motivation of existing staff, and providing service to patients.

Among administrators of hospitals with occupational therapy clinical rotations, three of nine respondents cited obtaining better qualified staff as the main benefit. Recruitment and the ability of the hospital to offer

expanded services were each cited by other hospital administrators as most important.

Types and Amounts of Expenses Reported on Medicare Cost Report. In the occupational therapy clinical rotations, faculty salaries, instructional materials, and supplies accounted for the most frequently reported categories of expenses. Clinical supervisors' salaries were reported by six clinical rotations, administrative salaries by four rotations and faculty salaries by three. Four clinical rotations reported charges for equipment, supplies and staff insurance. Expenses for instructional materials were reported in three clinical rotations.

The median direct cost reported for occupational therapy clinical rotations was $3,000 per rotation. The highest amount reported was $100,000 and the lowest was under $1,000. In hospitals with clinical rotations that reported salary expenses, these expenses comprised two-thirds of total costs reported.

Pharmacy Residencies

A pharmacy residency is a postgraduate program in hospital pharmacy practice. The Accreditation Standards for Hospital Pharmacy Residency Training are set forth in the basic criteria for the evaluation of hospital programs applying for accreditation by the American Society of Hospital Pharmacists.

Types of Programs and Students. Among 21 pharmacy residency programs in the sample, 15 were hospital sponsored programs and 6 were clinical rotations of academic sponsored programs. Six hospital sponsored programs were located at academic health centers with the other nine located in hospitals with major teaching orientations.

Most of the hospital sponsored programs, including university health center programs, awarded certificates to those who completed residencies, although several awarded bachelor or PharmD degrees. The six hospitals with academic sponsored residencies reported eight separate programs.

The median number of residents in a hospital sponsored program was two and the maximum, 12. In clinical rotations, the median was 3.5 and the maximum number of students was 18. The smallest program had only one resident.

Fiscal and Administrative Relationships. Very few of the 15 hospital sponsored pharmacy residency programs had external agreements with academic institutions. Four of the six academic sponsored programs had formal arrangements between the hospital and the academic institution. All agreements covered the supervision of students in the hospital. Three agreements addressed liability insurance, financial relationships, resource exchanges, number of students, duration of rotation, and the specialty areas to be taught during the training program. In all, the hospital staff had primary responsibility for supervising students during the rotation.

Financial and Other Benefits of Programs to Hospitals. Representatives of the 15 hospital sponsored pharmacy residency programs indicated a wide variety of program benefits as being most important to the hospital: recruiting

personnel, providing better care to patients, motivating staff, providing up-to-date techniques, student research projects, expanded service, and the freeing up of staff time.

Hospital administrators of institutions with hospital sponsored pharmacy residency programs also indicated a wide variety of other benefits, including better patient care, obtaining better qualified staff, motivating existing staff performance, and supporting the hospital's educational mission. For clinical rotations, obtaining better qualified staff, better care to patients, and work performed by students were cited as the most important program benefits.

Types and Amounts of Expenses Reported on Medicare Cost Report. In pharmacy residency programs, student stipends were the most frequently reported cost on the MCR by 11 of the hospital sponsored programs and 3 of the clinical rotations, while 7 hospital sponsored programs reported faculty salaries. Faculty salaries accounted for 20 to 100 percent of total costs. In hospital sponsored programs student stipends accounted for between 30 to 100 percent of the total costs on the MCR. The median direct cost for the hospital sponsored pharmacy residency programs in the sample was $69,500. The range of direct costs reported by such programs was from under $25,000 to over $500,000. The range of costs reported for clinical rotations was between $2,000 and $85,000, with a median cost of $23,700.

Physical Therapy

Physical therapists plan and administer treatment for the restoration of bodily functions, relief of pain, and prevention or limitation of permanent disability to those suffering from a disabling injury or disease. Physical therapy education programs are accredited by the Department of Accreditation of the American Physical Therapy Association. In 1987, 97 of 116 accredited U.S. entry level programs in physical therapy were at the baccalaureate level. Only two accredited programs were hospital sponsored.

Types of Programs and Students. The 11 programs in the sample contained 31 clinical rotations of academic-sponsored physical therapy programs. Seven of the hospitals sponsored clinical rotations from more than one academic institution, including rotations from as many as eight different institutions in one hospital. Because of the large number of clinical rotations, a subsample of 17 clinical rotations in 11 hospitals were chosen for study. The median number of students in the 17 clinical rotations was 2. All sponsoring academic institutions were four year colleges or universities.

Fiscal and Administrative Relationships. In 16 of 17 physical therapy clinical rotations, there were formal agreements between the hospital and the academic institution. All agreements covered the supervision of students and liability insurance. A duration of the clinical rotation clause was contained in 13 agreements with 8 agreements addressing the selection of students.

Only three of the academic sponsored physical therapy programs sent faculty members to the hospital to supervise students during their clinical rotation. Hospital staff provided some supervision in all rotations and in the majority of cases had primary responsibility. Eight hospitals exchanged

services with the academic institutions such as inservice training, library privileges, and continuing education with the academic institution.

Financial and Nonfinancial Benefits of Programs to Hospital. The vast majority of program representatives considered recruitment of personnel to be the major benefit of the physical therapy clinical rotations to the hospital. Others indicated source of up-to-date techniques, better care to patients, or the importance of a teaching lab in the hospital as their major benefit.

Most hospital administrators in institutions with physical therapy clinical rotations indicated recruitment as the most important benefit of the program. Other common responses were obtaining better qualified staff, fulfilling the hospital's educational commitment to the community, providing better care to patients, and enhancing the hospital's reputation.

Types and Amounts of Expenses Reported on Medicare Cost Report. In physical therapy clinical rotations, faculty salaries were the most frequently reported costs (11 hospitals). Instructional materials and supplies were also reported but less frequently.

The median direct cost reported for clinical rotations was $9,000 per rotation. For those hospitals reporting faculty salaries, this cost category represented from two-thirds to all of total costs, with a median of 90 percent.

Medical Records

Medical record technicians serve as technical assistants to the registered medical record administrator, carrying out many technical activities within a medical record department. The duties of the medical technician vary by size of institutions. In a small institution, the accredited medical record technician may have full responsibility for the operation of the records department; in a large institution the individual may specialize in a particular phase of the work. Accreditation of programs and development of education standards are the responsibility of the Division of Allied Health Education and Accreditation of the American Medical Association in cooperation with the American Medical Record Association.

Types of Programs and Students. While no medical record administrator programs were found in the sample hospitals, two hospitals contained medical record technician programs for which educational costs were being claimed on the MCR. Each served as the site for practicums for three academic sponsored programs. Both hospitals served a mix of four year colleges or universities and two year colleges. Students completing the two year college programs received an associate degree. The four year colleges and universities awarded bachelor's degrees. The medical record technician programs included in the sample hospitals consisted of four practicums, two at the associate degree level and two at the baccalaureate degree level, ranging in size from one to three students.

Fiscal and Administrative Relationships. All four medical record technician programs had negotiated formal written agreements between the hospital and

academic institution. All agreements covered supervision and selection of students as well as specialties to be taught. Hospital personnel maintained direct responsibility for the supervision of students during training.

Financial and Nonfinancial Benefits of Programs to Hospitals. The program directors were evenly split between recruitment and the provision of up-to-date techniques as the most important benefit. Likewise, hospital administrators indicated recruitment of personnel and educational commitment to the community as their most important benefits.

Types and Amounts of Expenses Reported on Medicare Cost Report. All medical record technician programs reported faculty salaries as program expenses. Such salaries represented 70 or 80 percent of the programs' expenses as reported on the MCR. One hospital with two programs reported administrative salaries, while the other hospital reported expenses for instructional materials. At one hospital, estimated annual net total direct costs charged to the programs on the MCR was $750 for one practicum and twice that amount for the other practicum. At the other hospital, the two practicums were estimated to cost about $11,000 and $22,000, a piece.

Radiography

Radiographers provide patient services using imaging modalities under the direction of physicians. Radiographers take XRay films of all parts of the human body for use in diagnosing medical problems. In addition, they prepare the patients for such examinations. The current Essentials of an Accredited Educational Program for the Radiographer were adopted by the American Medical Association as well as the American College of Radiology and the American Society of Radiologic Technologists. The latter two organizations collaborate with the AMA Council on Medical Education in developing, revising, and adopting Essentials.

Types of Programs and Students. The sample contained 82 hospitals with radiography training programs. Thirty-four were included in the subsample, of which 31 were hospital sponsored and 3 were clinical rotations of academic sponsored programs. Hospital sponsored programs contained a median of 12 students with a range of from 3 to 25. In the clinical rotations, the median number of students per rotation was 5, with the range of from 4 to 10.

Twenty-seven of 31 hospital sponsored radiography programs awarded certificates to students upon graduation. The remaining programs awarded a diploma, with one also awarding an associate degree. Each clinical rotation was administered by a two year college.

Fiscal and Administrative Relationships. Most of the 31 hospital sponsored radiography programs did not have an agreement with an academic institution. In two programs, the hospital paid tuition to the academic institution; in one case, students paid tuition to the academic institution. Twenty-five of the 31 programs directly charged their students a median annual tuition of $500 per year. Eleven of these programs also paid their students a stipend. Three programs sent their students to other health care facilities as part of their training.

All three hospitals with clinical rotations had formal written agreements with their academic affiliates. The agreements covered supervision of students, liability insurance, number of students, and duration of the rotation. Because the academic institutions did not send faculty members to the hospitals, the primary responsibility for supervising students belonged to the hospital in each case.

Financial and Nonfinancial Benefits of Program to Hospital. Recruiting personnel was cited by administrators of 19 facilities with hospital sponsored programs as the most important program benefit to the hospital. Another six administrators indicated the chief benefit was in obtaining better qualified staff.

Recruitment of personnel was also indicated as the most important benefit for 14 representatives of hospital sponsored programs and two representatives of clinical rotations. Eleven of 14 hospital sponsored programs reported that between 75 and 100 percent of their recently hired radiographers were graduates of the program. Two of three academic sponsored programs reported that two-thirds of the new hires had served a clinical rotation at the hospital. Three representatives of hospital sponsored programs also indicated that obtaining better qualified staff was the program's chief benefit to the hospital.

The 1986 CAHEA Program Directors Survey also supported these findings. In that study, two-thirds of radiography program directors, in hospitals reimbursed by Medicare for educational costs, stated that recruitment of graduates was very important. This proportion was found to be the highest in the Northeast and in the South. More than half reported that providing community service was very important to the program. Further, nearly 30 percent of such radiography program directors reported that student/staff interaction was very important to the hospitals participating in the training of these students.

Types and Amounts of Expenses Reported on Medicare Cost Report. All hospital sponsored radiography programs in the Applied Management Sciences sample reported faculty salaries as an expense on the MCR. For these programs, this item consisted of 30 to 100 percent of total costs, with a median of 79 percent. Other frequently reported expenses were administrative/clerical salaries, instructional materials, supplies, and accreditation/certification fees.

The hospital sponsored radiography programs in the sample had median net total direct costs of approximately $54,000. The median cost of the clinical rotations of academic sponsored programs was $25,000.

Respiratory Therapy

The respiratory therapist applies scientific knowledge and theory to practical clinical problems of respiratory care. The knowledge and skills are acquired through formal didactic, laboratory, and clinical preparation. The respiratory therapist is responsible for all aspects of respiratory care, including supervision of respiratory therapy technicians. The respiratory therapy technician is responsible for assigned procedures under the

supervision of a therapist and physician. The American Medical Association's Committee on Allied Health Education and Accreditation in coordination with the American Association of Respiratory Care is responsible for accreditation of both types of programs.

Types of Programs and Students. Nineteen hospitals in the sample had either respiratory therapy or respiratory therapy technician programs. The majority were academic sponsored programs. One hospital selected in the sample had a hospital sponsored respiratory therapy program operated by an academic health center. Two hospitals had hospital sponsored respiratory therapy technician programs. Fourteen hospitals had clinical rotations of respiratory therapy programs and two hospitals had clinical rotations of academic sponsored technician programs. One hospital had both types of programs.

The 14 hospitals affiliated with academic sponsored respiratory therapy programs reported 18 clinical rotations. Several hospitals provided clinical experience for more than one academic institution. Twelve were with two year colleges and six were with four year colleges or universities. In most cases the respiratory therapy program director or director of respiratory therapy was interviewed. The respiratory therapy clinical rotations ranged in size from 3 to 40 students. Four rotations had 25 or more students, and 7 had 10 or fewer students.

Fiscal and Administrative Relationships. The single hospital sponsored respiratory therapist education program was located in a hospital that was part of an academic health center. Students paid tuition directly to the academic institution. Both hospital sponsored technician programs had arrangements with two year colleges to carry out part of their educational activities.

All 15 academic sponsored respiratory therapy programs had formal written agreements between the hospital and the academic institution, each of which covered supervision of students. Most agreements covered: liability insurance, number of students, duration of the rotation, and specialty areas to be taught during the training program. About half of the 15 agreements covered nonfinancial resource exchanges and selection of students. In 11 academic sponsored therapy programs, faculty from the academic institution supervised students in the hospital during their clinical rotation although hospital staff had primary responsibility in all but one case.

The academic institution made payments to the hospital in 10 of the 15 clinical rotations. In addition, five clinical rotations reported a nonfinancial exchange of library privileges or continuing education. In the two academic-sponsored technician programs, there were formal, written agreements between the hospital and the academic institution. In both cases the contracts covered the supervision of the students and the specialists to be covered. In both programs, hospital personnel had primary responsibility for supervising the students during the clinical experience.

Financial and Nonfinancial Benefits of Programs to Hospitals. Obtaining better qualified staff was cited by the respiratory therapy program representatives as the most important benefit of the respiratory therapy rotation in 6 of the 15 clinical rotations. Recruitment of personnel was

mentioned five times while improved patient care and "keeping staff on their toes" also were reported.

All 15 representatives of respiratory therapy clinical rotations mentioned that recruiting personnel, obtaining better qualified staff, and observing personnel before hiring were beneficial to the hospital. The importance of the recruitment benefits is underscored by the recent hiring patterns at these hospitals. Hospital representatives reported hiring between 15 percent and 100 percent of their new respiratory therapists from graduates of their clinical rotations.

Hospital administrators in institutions with clinical rotations of programs most commonly saw the obtaining of better qualified staff as the most important benefit of the respiratory therapy clinical rotation, although recruitment was also a very common response.

The perceived benefits of technician educational programs were similar to those for therapy programs. In the two hospital-sponsored programs, both program directors mentioned recruitment as the main benefit.

Types and Amounts of Expenses Reported on Medicare Cost Report. Faculty salaries were the most frequently reported pass through expense for the clinical rotations of the academic sponsored therapy programs. The only other expenses reported in more than two cases were administrators' and clinical supervisors' salaries. Salaries were also the largest component of the total direct costs in most of the clinical rotations. In 11 clinical rotations, salaries (faculty, administrative, and clinical supervisors') accounted for over 90 percent of the direct costs.

In hospital sponsored technician programs, salaries and benefits accounted for 91 percent of the direct costs in one program and two-thirds of the direct costs in the other program. In the latter program, equipment costs, cafeteria cost, instructional materials, certification/accreditation fees, and uniforms were also listed as program expenses.

Hospital Administration

Hospital and health care administrators form part of the management team in hospitals and other health care facilities. Their training encompasses studies in both generalized management fields and in areas specific to health care.

Types of Programs and Students. There were only four hospitals with hospital administration programs found among the 200 hospitals receiving Medicare pass through reimbursement in the sample. One operated a hospital sponsored administrative fellowship. The other three were sites of administrative residencies of academic sponsored programs. There were two trainees in the hospital sponsored fellowship program and one trainee in each of the three administrative residencies.

Fiscal and Administrative Relationships. The hospital sponsored programs did not have arrangements with outside academic institutions. Two of three administrative residencies had formal written agreements with their academic

affiliates which covered supervision of students, selection of students, duration of rotations, specialties to be taught and reciprocal staff appointments.

Financial and Nonfinancial Benefits of Programs to Hospitals. Representatives of the hospital sponsored program reported the chief benefit to be its source of up-to-date techniques and practices. In the academic sponsored programs, program representatives cited the work residents performed in the hospital, providing up-to-date techniques, and supporting the hospital's educational mission as the most important benefits.

Hospital administrators of hospital sponsored programs indicated the most important benefit to the hospital was that the program served as a source of part-time labor. The three administrators of hospitals with academic sponsored clinical rotations cited the ability to obtain better staff, furthering the hospital's educational commitment to the community, and use of the students in special projects and reports as the major benefits.

Types and Amounts of Expenses Reported on Medicare Cost Report. Fellowship stipends were the only expenses reported by hospital sponsored programs. In academic sponsored programs, all clinical rotations reported the costs of resident stipends; one program also reported expenses for administrative salaries. Hospitals with residencies of academic sponsored programs reported net total direct costs in the range of $11,000 to $35,000 per year. The reported cost of hospital sponsored programs was approximately $56,000 per year.

Clinical Pastoral Education

Although clinical pastoral education is not one of the 13 programs specifically cited in the regulations as eligible for pass through reimbursement, it has been a recognized field of study for over 50 years. There are now approximately 400 centers throughout the United States offering certificates in clinical pastoral education. Clinical pastoral education uses the behavioral sciences in a theological framework.

Numbers and Types of Programs. There were nine clinical pastoral education programs in the sample, for which educational costs were included on the MCR. Six of these hospitals were operated by a religious denomination while three hospitals were nonreligious privately owned hospitals. The largest such program had 27 students while the smallest had 3 students; with the median number of students was 6.

Fiscal and Administrative Relationships. Only two of the clinical pastoral education programs in the sample had arrangements with an academic institution to carry out part of the hospital's program. In these cases, the hospital paid a seminary directly for the courses taken by clinical pastoral students. Three programs also sent students to other hospitals or health care institutions as part of their training. In addition, almost all programs paid stipends to the students.

Financial and Nonfinancial Benefits of Program to Hospital. Eight program directors cited the provision of pastoral care and counseling to patients and

their families as the chief benefit of the program to the hospital. Training of religious personnel was the other benefit cited.

Four hospital administrators cited better patient care as the most important benefit, while three administrators indicated that savings in hospital staff time was the program's chief benefit.

Types and Amounts of Expenses reported on Medicare Cost Report. All clinical pastoral education programs reported faculty salaries as program expenses. Sixty percent of total reported program costs consisted of faculty salaries. Seven programs also reported student stipends as an expense on the MCR. The median expense for a clinical pastoral education program by a hospital in the sample was approximately $89,000. The highest reported annual cost was $238,000; the lowest annual cost reported was $35,000.

Emergency Medical Technician

Emergency Medical Technician-Paramedics (EMT), working under the direction of a physician often through radio communication, recognize, assess, and manage medical emergencies of acutely ill or injured patients in pre hospital care settings. The Council on Medical Education of the American Medical Association in cooperation with American College of Emergency Physicians, National Association of Emergency Medical Technicians and other organizations is responsible for development of educational standards. Although emergency medical technician/paramedic programs are not one of the 13 programs listed in the HCFA regulations, there were a number of such programs with reimbursable educational costs included within the sample hospitals.

Number and Types of Programs. There were 13 EMT programs, all hospital sponsored, in the sample. Eleven programs granted certificates of completion to their graduates and two granted diplomas. Participants included both paid and volunteer public safety workers such as ambulance workers, fire fighters, and police officers. The median number of students in the EMT programs in the sample hospitals was 29. The smallest program had eight students while the largest program enrolled 100 students.

Fiscal and Administrative Relationships. Eleven programs sent students to other hospitals or health care facilities as part of their training. Nine programs had contracts or agreements with their affiliates such as other hospitals, ambulance services, fire departments, or academic institutions. Nine hospitals charged their students tuition; one hospital which did not charge tuition directly had an agreement with a two year college to handle administrative details, including tuition, and pay the hospital for each student enrolled in the program. Tuition ranged from $300 to $1,700, depending upon the program and level.

Financial and Nonfinancial benefits of Program to Hospital. Eight directors of EMT programs rated prehospital patient care as the most important program benefit. Other program directors indicated that establishing a good relationship with the surrounding community was the most important benefit. Administrators at 8 of the 13 hospitals included in the sample reported that enhancing the hospital's reputation in the community was the most important

benefit of the program to the hospital. Four hospital administrators considered better patient care to be the chief benefit.

Types and Amounts of Expenses Reported on Medicare Cost Report. Twelve emergency medical technician programs reported faculty salaries on the MCR. Program administration expenses were also reported by most programs. For programs reporting this expense item, this represented a substantial proportion of total expenses. The median hospital sponsored emergency medical technician program in the sample reported annual expenses of approximately $43,000.

Nuclear Medical Technology

The nuclear medicine technologist assists nuclear medicine physicians in the use of radioactive materials to make medical diagnoses and provide therapy. Nuclear medical technology, although not cited specifically in the HCFA regulations, is a CAHEA accredited field and a number of hospitals in the sample were found to have educational programs receiving Medicare pass through reimbursement.

Numbers and Types of Programs. Six of the seven nuclear medical technology programs in the sample were hospital sponsored programs. Graduates were awarded certificates of completion. There was one clinical rotation of a program sponsored by a four year academic institution which awarded a bachelor's degree. All programs were relatively small with a median number of 3.5 enrollees in the hospital sponsored programs and two students enrolled in the academic sponsored clinical rotation.

Fiscal and Administrative Relationships. While no hospital sponsored program had arrangements with an academic institution, two programs sent students to other health care facilities for part of their clinical training. Four of the six hospital sponsored programs charged their students an average of $575 tuition.

In three of the hospitals, one-half of the hospitals' new employees were recent graduates of the program, while two of the hospitals hired students for part-time jobs while in the program.

One hospital had a formal agreement with an academic institution. The agreement covered subjects such as supervision of students, liability insurance, financial relationships, and other resource exchanges.

Financial and Nonfinancial Benefits of Programs to Hospitals. Three of the six education program representatives identified recruiting as the most important benefit to the hospital. In two of these hospitals, the majority of new employees came from the program. Other program representatives variously identified the most important benefit as staff training, enhancement of the hospital's reputation, and providing an opportunity to remain current in a rapidly changing field.

Among the hospital sponsored programs, hospital administrators were as concerned with staffing and training issues as were the program representatives. Four of the six hospital administrators considered

recruitment of personnel as the most important program benefit to the hospital. In three of these hospitals, one-half of the hospital's new employees in nuclear medical technology were recent graduates of the hospital's educational program.

Types and Amounts of Expenses Reported on Medicare Cost Report. All of the hospital sponsored nuclear medicine technology programs reported faculty salaries as program expenses on the MCR. Such salaries averaged two-thirds of total costs reported for these programs. In addition, three of the programs reported administrative salaries as an expense. The average annual expenses reported among hospital sponsored programs were $32,300.

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Approved Programs. In addition to approved medical, osteopathic, dental, and podiatry internships and residency programs recognized professional and paramedical educational and training programs now being conducted by provider institutions, and their approving bodies, include the following:

Program		Approving bodies
(1)	Cytotechnology	Council on Medical Education of the American Medical Association in collaboration with the Board of Schools of Medical Technology, American Society of Clinical Pathologists.
(2)	Dietetic internships	The American Dietetic Association.
(3)	Hospital administration residencies.	Members of the Association of University Programs in Hospital Administration.
(4)	Inhalation therapy	Council on Medical Education of the American Medical Association in collaboration with the Board of Schools of Inhalation Therapy.
(5)	Medical records	Council on Medical Education of the American Medical Association in collaboration with the Committee on Education and and Registration of the American Association of Medical Record Librarians.
(6)	Medical technology	Council on Medical Education of the American Medical Association in collaboration with the Board of Schools of Medical Technology, American Society of Clinical Pathologists.
(7)	Nurse anesthetists	The American Association of Nurse Anesthetists.
(8)	Professional nursing	Approved by the respective State approving authorities. Reported for the United States by the National League for Nursing.
(9)	Practical nursing	Approved by the respective State approving authorities. Reported for the United States by the National League for Nursing.
(10)	Occupational therapy	Council on Medical Education of the American Medical Association in collaboration with the Council on Education of the American Occupational Therapy Association.
(11)	Pharmacy residencies	American Society of Hospital Pharmacists.
(12)	Physical therapy	Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association.
(13)	X-ray technology	Council on Medical Education of the American Medical Association in collaboration with the American College of Radiology.

Other Educational Programs. There may also be other educational programs not included in the foregoing in which a provider institution is engaged. Appropriate consideration will be given by the intermediary and the Social Security Administration to the costs incurred for those activities that come within the purview of the principle when determining the allowable costs for apportionment under the health insurance program.

APPENDIX B

Participating Organizations in January 1987 Workshop Relating to "Study of Nursing and Other Health Professions Reimbursed Under Medicare"

Following are non-Federal participating organizations in the January, 1987 workshop sponsored by the Bureau of Health Professions to provide input on the specifics for survey instruments for the congressionally mandated "Study of Nursing and Other Health Professions Reimbursed Under Medicare"

American Association of Colleges of Nursing

American Association of Nurse Anesthetists

American Association of Respiratory Care

American Dietetic Association

American Hospital Association

American Medical Association

American Medical Records Association

American Nurses Association

American Occupational Therapy Association

American Physical Therapy Association

American Society of Clinical Pathologists

American Society of Hospital Pharmacists

American Society of Medical Technology

Association of University Programs in Health Administration

National Association of Practical Nurses Education and Service

National Federation of Licensed Practical Nurses

National League for Nursing

APPENDIX C

RECLASSIFICATION AND ADJUSTMENT OF TRIAL BALANCE OF EXPENSES	PROVIDER NO.:	PERIOD: FROM '80 TO '80	WORKSHEET A

	COST CENTER (omit cents)	SALARIES 1	OTHER 2	TOTAL 3	RECLASSI-FICATIONS 4	RECLASSIFIED TRIAL BALANCE 5	ADJUSTMENTS 6	NET EXPENSES FOR ALLOCATION 7	
	GENERAL SERVICE COST CENTERS								
1	Capital-Related Costs--Buildings and Fixtures								1
2	Capital-Related Costs--Movable Equipment								2
3	Employee Benefits								3
4	Administrative and General								4
5	Maintenance and Repairs								5
6	Operation of Plant								6
7	Laundry and Linen Service								7
8	Housekeeping								8
9	Dietary								9
10	Cafeteria								10
11	Maintenance of Personnel								11
12	Nursing Administration								12
13	Central Services and Supply								13
14	Pharmacy								14
15	Medical Records and Library								15
16	Social Service								16
17									17
18									18
19									19
20	Nursing School								20
21	Intern-Resident Service--(In approved teaching program)								21
22	Paramedical Education Program (Specify)								22
23	Paramedical Education Program (Specify)								23
24	Paramedical Education Program (Specify)								24
	INPATIENT ROUTINE SERVICE COST CENTERS								
25	Adults and Pediatrics (General Routine Care)								25
26	Intensive Care Unit								26
27	Coronary Care Unit								27
28									28
29									29
30									30
31	Subprovider I								31
32	Subprovider II								32
33	Nursery								33
34	Skilled Nursing Facility								34
35	Intermediate Care Facility								35

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RECLASSIFICATION AND ADJUSTMENT OF TRIAL BALANCE OF EXPENSES	PROVIDER NO.:	PERIOD: FROM '80 TO '80	WORKSHEET A (Continued)

	COST CENTER (omit cents)	SALARIES 1	OTHER 2	TOTAL 3	RECLASSI-FICATIONS 4	RECLASSIFIED TRIAL BALANCE 5	ADJUSTMENTS 6	NET EXPENSES FOR ALLOCATION 7	
36	Other Long Term Care								36
	ANCILLARY SERVICE COST CENTERS								
37	Operating Room								37
38	Recovery Room								38
39	Delivery Room and Labor Room								39
40	Anesthesiology								40
41	Radiology--Diagnostic								41
42	Radiology--Therapeutic								42
43	Radioisotope								43
44	Laboratory								44
45	PRP Clinical Lab Service-Program Only								45
46	Whole Blood and Packed Red Blood Cells								46
47	Blood Storing, Processing and Transfusing								47
48	Intravenous Therapy								48
49	Respiratory Therapy								49
50	Physical Therapy								50
51	Occupational Therapy								51
52	Speech Pathology								52
53	Electrocardiology								53
54	Electroencephalography								54
55	Medical Supplies Charged to Patients								55
56	Drugs Charged to Patients								56
57	Renal Dialysis								57
58									58
59									59
	OUTPATIENT SERVICE COST CENTERS								
60	Clinic								60
61	Emergency								61
62									62
	OTHER REIMBURSABLE COST CENTERS								
63	Home Program Dialysis								63
64	Ambulance Services								64
65	Durable Medical Equipment--Rented								65
66	Durable Medical Equipment--Sold								66
67									67
68									68

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RECLASSIFICATIONS AND ADJUSTMENT OF TRIAL BALANCE OF EXPENSES

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET A (Continued)

	COST CENTER (and costs)	SALARIES 1	OTHER 2	TOTAL 3	RECLASSIFICATIONS 4	RECLASSIFIED TRIAL BALANCE 5	ADJUSTMENTS 6	NET EXPENSES FOR ALLOCATION 7	
69	Home Program Dialysis Equipment--100% Medicare								69
70	Intern-Resident Srvc--(not in approved teaching programs)								70
71	Administrative and General--HHA								71
72	Skilled Nursing Care--HHA								72
73	Physical Therapy--HHA								73
74	Occupational Therapy--HHA								74
75	Speech Pathology--HHA								75
76	Medical Social Services--HHA								76
77	Home Health Aide--HHA								77
78	Medical Appliances/DME-Rented--HHA								78
79	Medical Appliances/DME-Sold--HHA								79
80	Home Delivered Meals--HHA								80
81	Other Home Health Services--HHA								81
82	CORF								82
	SPECIAL PURPOSE COST CENTERS								83
C	Kidney Acquisition								84
84	Liver Acquisition								85
85	Other Organ Acquisition								86
86	Malpractice Premiums & Paid Losses								87
87	Interest Expense							-0-	88
88	Utilization Review--IRF							-0-	89
89	PSRO--Federal or Combined							-0-	90
90	PSRO--Non-Federal							-0-	91
91	Ambulatory Surgical Center							-0-	92
92	Hospice							-0-	93
93									94
94									95
95	SUBTOTALS								96
	NONREIMBURSABLE COST CENTERS								97
96	Gift, Flower, Coffee Shops and Canteen								98
97	Research								99
98	Physicians' Private Offices								100
99	Nonpaid Workers								101
100									102
101	TOTAL				-0-				103

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COST ALLOCATION--GENERAL SERVICE COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET B PART I

	COST CENTER DESCRIPTION	NET EXPENSES FOR COST ALLOCATION (FR WKST A, COL 7) 0	CAPITAL RELATED COST BLDGS & FIXTURES 1	CAPITAL RELATED COST MOVABLE EQUIPMENT 2	EMPLOYEE BENEFITS 3	SUBTOTAL (COLS 0-3) 3.01	ADMINISTRATIVE & GENERAL 8	MAINTENANCE & REPAIRS 5	OPERATION OF PLANT 6	LAUNDRY & LINEN SERVICE 7	
	GENERAL SERVICE COST CENTERS										
1	Capital-Related Costs--Buildings and Fixtures										1
2	Capital-Related Costs--Movable Equipment										2
3	Employee Benefits										3
4	Administrative and General										4
5	Maintenance and Repairs										5
6	Operation of Plant										6
7	Laundry and Linen Service										7
8	Housekeeping										8
9	Dietary										9
10	Cafeteria										10
11	Maintenance of Personnel										11
12	Nursing Administration										12
13	Central Services and Supply										13
14	Pharmacy										14
15	Medical Records and Library										15
16	Social Service										16
17											17
18											18
19											19
20	Nursing School										20
21	Intern-Res.Srvc--(in an approved teaching progr.)										21
22	Paramedical Education Program (Specify)										22
23	Paramedical Education Program (Specify)										23
24	Paramedical Education Program (Specify)										24
	INPATIENT ROUTINE SERVICE COST CENTERS										25
25	Adults and Pediatrics (General Routine Care)										26
26	Intensive Care Unit										27
27	Coronary Care Unit										28
28											29
29											30
30											31
31	Subprovider I										32
32	Subprovider II										33
33	Nursery										34
34	Skilled Nursing Facility										35
35	Intermediate Care Facility										36

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, DEC. 1987)

COST ALLOCATION—GENERAL SERVICE COSTS				PROVIDER NO.:		PERIOD: FROM TO		WORKSHEET B PART I (CONT.)		
COST CENTER DESCRIPTION	NET EXPENSES FOR COST ALLOCATION (FR WKST A, COL 7)	CAPITAL RELATED COST BLDGS & FIXTURES	CAPITAL RELATED COST MOVABLE EQUIPMENT	EMPLOYEE BENEFITS	SUBTOTAL (COLS 0-3)	ADMINISTRATIVE & GENERAL	MAINTENANCE & REPAIRS	OPERATION OF PLANT	LAUNDRY & LINEN SERVICE
	0	1	2	3	3a	4	5	6	7	
34 Other Long Term Care										34
ANCILLARY SERVICE COST CENTERS										
39 Operating Room										39
40 Recovery Room										40
41 Delivery Room and Labor Room										41
42 Anesthesiology										42
43 Radiology—Diagnostic										43
44 Radiology—Therapeutic										44
45 Radioisotope										45
46 Laboratory										46
47 PRO Clinical Lab Service-Program Only										47
48 Whole Blood and Packed Red Blood Cells										48
49 Blood Storing, Processing and Transfusing										49
50 Intravenous Therapy										50
51 Respiratory Therapy										51
52 Physical Therapy										52
53 Occupational Therapy										53
54 Speech Pathology										54
55 Electrocardiology										55
56 Electroencephalography										56
57 Medical Supplies Charged to Patients										57
58 Drugs Charged to Patients										58
59 Renal Dialysis										59
60										60
61										61
OUTPATIENT SERVICE COST CENTERS										
62 Clinic										62
63 Emergency										63
64										64
OTHER REIMBURSABLE COST CENTERS										
65 Home Program Dialysis										65
66 Ambulance Services										66
67 Durable Medical Equipment—Rented										67
68 Durable Medical Equipment—Sold										68
69										69
70										70

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COST ALLOCATION—GENERAL SERVICE COSTS				PROVIDER NO.:		PERIOD: FROM TO		WORKSHEET B PART I (CONT.)		
COST CENTER DESCRIPTION	NET EXPENSES FOR COST ALLOCATION (FR WKST A, COL 7)	CAPITAL RELATED COST BLDGS & FIXTURES	CAPITAL RELATED COST MOVABLE EQUIPMENT	EMPLOYEE BENEFITS	SUBTOTAL (COLS 0-3)	ADMINISTRATIVE & GENERAL	MAINTENANCE & REPAIRS	OPERATION OF PLANT	LAUNDRY & LINEN SERVICE
	0	1	2	3	3a	4	5	6	7	
69 Home Program Dialysis Equipment—100% Medicare										69
70 Intern-Resd.Srvc—(not in approv. teaching prog't.)										70
71 Administrative and General—HHA										71
72 Skilled Nursing Care—HHA										72
73 Physical Therapy—HHA										73
74 Occupational Therapy—HHA										74
75 Speech Pathology—HHA										75
76 Medical Social Services—HHA										76
77 Home Health Aide—HHA										77
78 Medical Appliances/DME-Rented—HHA										78
79 Medical Appliances/DME-Sold—HHA										79
80 Home Delivered Meals—HHA										80
81 Other Home Health Services—HHA										81
82 CORF										82
SPECIAL PURPOSE COST CENTERS										
83 Kidney Acquisition										83
84 Liver Acquisition										84
85 Other Organ Acquisition										85
91 Ambulatory Surgical Center										91
92 Hospice										92
93										93
94										94
95 SUBTOTALS										95
NONREIMBURSABLE COST CENTERS										
96 Gift, Flower, Coffee Shops and Canteen										96
97 Research										97
98 Physicians' Private Offices										98
99 Non-RHC Workers										99
100										100
101 Cross Foot Adjustments										101
102 Negative Cost Center										102
103 TOTAL										103

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1513)

COST ALLOCATION—GENERAL SERVICE COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET B PART I (CONT.)

	COST CENTER DESCRIPTION	HOUSE-KEEPING 8	DIETARY 9	CAFETERIA 10	ADMITTANCE OF PERSONNEL 11	NURSING ADMINISTRATION 12	CENTRAL SERVICES & SUPPLY 13	PHARMACY 14	MEDICAL RECORDS & LIBRARY 15	SOCIAL SERVICE 16	
	GENERAL SERVICE COST CENTERS										
1	Capital-Related Costs—Buildings and Fixtures										1
2	Capital-Related Costs—Movable Equipment										2
3	Employee Benefits										3
4	Administrative and General										4
5	Maintenance and Repairs										5
6	Operation of Plant										6
7	Laundry and Linen Service										7
8	Housekeeping										8
9	Dietary										9
10	Cafeteria										10
11	Maintenance of Personnel										11
12	Nursing Administration										12
13	Central Services and Supply										13
14	Pharmacy										14
15	Medical Records and Library										15
16	Social Service										16
17											17
18											18
19											19
20	Nursing School										20
21	Intern-Res.Srvc.—(in an approved teaching progr.)										21
22	Paramedical Education Program (Specify)										22
23	Paramedical Education Program (Specify)										23
24	Paramedical Education Program (Specify)										24
	OUTPATIENT ROUTINE SERVICE COST CENTERS										25
25	Adults and Pediatrics (General Routine Care)										26
26	Intensive Care Unit										27
27	Coronary Care Unit										28
28											29
29											30
30											31
31	Subprovider I										32
32	Subprovider II										33
33	Nursery										34
34	Skilled Nursing Facility										35
35	Intermediate Care Facility										36

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB 15-II, SEC. 3513)

COST ALLOCATION—GENERAL SERVICE COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET B PART I (CONT.)

	COST CENTER DESCRIPTION	HOUSE-KEEPING 8	DIETARY 9	CAFETERIA 10	ADMITTANCE OF PERSONNEL 11	NURSING ADMINISTRATION 12	CENTRAL SERVICES & SUPPLY 13	PHARMACY 14	MEDICAL RECORDS & LIBRARY 15	SOCIAL SERVICE 16	
36	Other Long Term Care										36
	ANCILLARY SERVICE COST CENTERS										
37	Operating Room										37
38	Recovery Room										38
39	Delivery Room and Labor Room										39
40	Anesthesiology										40
41	Radiology—Diagnostic										41
42	Radiology—Therapeutic										42
43	Radioisotope										43
44	Laboratory										44
45	PRP Clinical Lab Service-Program Only										45
46	Whole Blood and Packed Red Blood Cells										46
47	Blood Storing, Processing and Transfusing										47
48	Intravenous Therapy										48
49	Respiratory Therapy										49
50	Physical Therapy										50
51	Occupational Therapy										51
52	Speech Pathology										52
53	Electrocardiology										53
54	Electroencephalography										54
55	Medical Supplies Charged to Patients										55
56	Drugs Charged to Patients										56
57	Renal Dialysis										57
58											58
59											59
	OUTPATIENT SERVICE COST CENTERS										
60	Clinic										60
61	Emergency										61
62											62
	OTHER REIMBURSABLE COST CENTERS										
63	Home Program Dialysis										63
64	Ambulance Services										64
65	Durable Medical Equipment—Rented										65
66	Durable Medical Equipment—Sold										66
67											67
68											68

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 3513)

COST ALLOCATION—GENERAL SERVICE COSTS	PROVIDER NO.:	PERIOD: FROM TO	WORKSHEET B PART I (CONT.)

	COST CENTER DESCRIPTION	HOME-MAKER SERVICE	DIETARY	CAFETERIA	MAINTE-NANCE OF PERSONNEL	NURSING ADMINIS-TRATION	CENTRAL SERVICES & SUPPLY	PHARMACY	MEDICAL RECORDS & LIBRARY	SOCIAL SERVICE	
		8	9	10	11	12	13	14	15	16	
69	Home Program Dialysis Equipment--1880 Medicare										69
70	Intern-Res.Srvc--(not in approv. teaching progr.)										70
71	Administrative and General--HHA										71
72	Skilled Nursing Care--HHA										72
73	Physical Therapy--HHA										73
74	Occupational Therapy--HHA										74
75	Speech Pathology--HHA										75
76	Medical Social Services--HHA										76
77	Home Health Aide--HHA										77
78	Medical Appliances/DME-Rented--HHA										78
79	Medical Appliances/DME-Sold--HHA										79
80	Home Delivered Meals--HHA										80
81	Other Home Health Services--HHA										81
82	CORF										82
	SPECIAL PURPOSE COST CENTERS										
83	Kidney Acquisition										83
84	Liver Acquisition										84
85	Other Organ Acquisition										85
91	Ambulatory Surgical Center										91
92	Hospice										92
93											93
94											94
95	SUBTOTALS										95
	NONREIMBURSABLE COST CENTERS										
96	Gift, Flower, Coffee Shops and Canteen										96
97	Research										97
98	Physicians' Private Offices										98
99	NonPaid Workers										99
100											100
101	Cross Foot Adjustments										101
102	Negative Cost Center										102
103	TOTAL										103

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1513)

COST ALLOCATION—GENERAL SERVICE COSTS	PROVIDER NO.:	PERIOD: FROM TO	WORKSHEET B PART I (CONT.)

	COST CENTER DESCRIPTION				NURSING SCHOOL	INTERNS & RESIDENTS (APPROVED)	PARAMEDICAL EDUCATION (SPECIFY)	PARAMEDICAL EDUCATION (SPECIFY)	PARAMEDICAL EDUCATION (SPECIFY)	TOTAL	
		17	18	19	20	21	22	23	24	25	
	GENERAL SERVICE COST CENTERS										
1	Capital-Related Costs--Buildings and Fixtures										1
2	Capital-Related Costs--Movable Equipment										2
3	Employee Benefits										3
4	Administrative and General										4
5	Maintenance and Repairs										5
6	Operation of Plant										6
7	Laundry and Linen Service										7
8	Housekeeping										8
9	Dietary										9
10	Cafeteria										10
11	Maintenance of Personnel										11
12	Nursing Administration										12
13	Central Service and Supply										13
14	Pharmacy										14
15	Medical Records and Library										15
16	Social Service										16
17											17
18											18
19											19
20	Nursing School										20
21	Intern-Res.srvc--(is an approved teaching progr.)										21
22	Paramedical Education Program (Specify)										22
23	Paramedical Education Program (Specify)										23
24	Paramedical Education Program (Specify)										24
	INPATIENT ROUTINE SERVICE COST CENTERS										
25	Adults and Pediatrics (General Routine Care)										25
26	Intensive Care Unit										26
27	Coronary Care Unit										27
28											28
29											29
30											30
31	Subprovider I										31
32	Subprovider II										32
33	Nursery										33
34	Skilled Nursing Facility										34
35	Intermediate Care Facility										35

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCF. PUB. 15-II, SEC. 1513)

COST ALLOCATION—GENERAL SERVICE COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET D PART I (CONT.)

COST CENTER DESCRIPTION	17	18	19	NURSING SCHOOL 20	INTERNS & RESIDENTS (APPROVED) 21	PARAMEDICAL EDUCATION (SPECIFY) 22	PARAMEDICAL EDUCATION (SPECIFY) 23	PARAMEDICAL EDUCATION (SPECIFY) 24	TOTAL 25	
36 Other Long Term Care										36
ANCILLARY SERVICE COST CENTERS										37
37 Operating Room										38
38 Recovery Room										39
39 Delivery Room and Labor Room										40
40 Anesthesiology										41
41 Radiology—Diagnostic										42
42 Radiology—Therapeutic										43
43 Radioisotope										44
44 Laboratory										45
45 PRO Clinical Lab Service-Program Only										46
46 Whole Blood and Packed Red Blood Cells										47
47 Blood Storage, Processing and Transfusing										48
48 Intravenous Therapy										49
49 Respiratory Therapy										50
50 Physical Therapy										51
51 Occupational Therapy										52
52 Speech Pathology										53
53 Electrocardiology										54
54 Electroencephalography										55
55 Medical Supplies Charged to Patients										56
56 Drugs Charged to Patients										57
57 Renal Dialysis										58
58										59
59										60
OUTPATIENT SERVICE COST CENTERS										61
60 Clinic										62
61 Emergency										63
62										64
OTHER REIMBURSABLE COST CENTERS										65
63 Home Program Dialysis										66
64 [illegible]										67
65 Durable Medical Equipment—Rented										68
66 Durable Medical Equipment—Sold										69
67										70
68										71

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1513)

COST ALLOCATION—GENERAL SERVICE COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET D PART I (CONT.)

COST CENTER DESCRIPTION	17	18	19	NURSING SCHOOL 20	INTERNS & RESIDENTS (APPROVED) 21	PARAMEDICAL EDUCATION (SPECIFY) 22	PARAMEDICAL EDUCATION (SPECIFY) 23	PARAMEDICAL EDUCATION (SPECIFY) 24	TOTAL 25	
69 Home Program Dialysis Equipment—100% Medicare										69
70 Intern-Res.Srvc—(not in approv. teaching prgm.)										70
71 Administrative and General—HHA										71
72 Skilled Nursing Care—HHA										72
73 Physical Therapy—HHA										73
74 Occupational Therapy—HHA										74
75 Speech Pathology—HHA										75
76 Medical Social Services—HHA										76
77 Home Health Aide—HHA										77
78 Medical Appliances/DME-Rented—HHA										78
79 Medical Appliances/DME-Sold—HHA										79
80 Home Delivered Meals—HHA										80
81 Other Home Health Services—HHA										81
82 CORF										82
SPECIAL PURPOSE COST CENTERS										83
83 Kidney Acquisition										84
84 Liver Acquisition										85
85 Other Organ Acquisition										91
91 Ambulatory Surgical Center										92
92 Hospice										93
93										94
94										95
95 SUBTOTALS										96
NONREIMBURSABLE COST CENTERS										97
96 Gift, Flower, Coffee Shops and Canteen										98
97 Research										99
98 Physicians' Private Offices										100
99 NonPaid Workers										101
100										102
101 Cross Foot Adjustments										103
102 Negative Cost Center										
103 TOTAL										

Form HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II SEC. 1513)

ALLOCATION OF CAPITAL-RELATED COST				PROVIDER NO.:		PERIOD: FROM TO				WORKSHEET B PART II	
COST CENTER DESCRIPTION	DIRECTLY ASSIGNED CAPITAL RELATED COSTS	CAPITAL RELATED COST BLDGS & FIXTURES	CAPITAL RELATED COST MOVABLE EQUIPMENT	CAP REL. COST TO BE ALLOCATED (COL. 0 - (COL. 2)	EMPLOYEE BENEFITS	ADMINISTRATIVE & GENERAL	MAINTENANCE & REPAIRS	OPERATION OF PLANT	LAUNDRY & LINEN SERVICE		
	0	1	2	2a	3	4	5	6	7		
	GENERAL SERVICE COST CENTERS										
1	Capital-Related Costs--Buildings and Fixtures										1
2	Capital-Related Costs--Movable Equipment										2
3	Employee Benefits										3
4	Administrative and General										4
5	Maintenance and Repairs										5
6	Operation of Plant										6
7	Laundry and Linen Service										7
8	Housekeeping										8
9	Dietary										9
10	Cafeteria										10
11	Maintenance of Personnel										11
12	Nursing Administration										12
13	Central Services and Supply										13
14	Pharmacy										14
15	Medical Records and Library										15
16	Social Service										16
17											17
18											18
19											19
20	Nursing School										20
21	Intern-Res. Srvc--(In approved teaching program)										21
22	Paramedical Education Program (Specify)										22
23	Paramedical Education Program (Specify)										23
24	Paramedical Education Program (Specify)										24
	OUTPATIENT ROUTINE SERVICE COST CENTERS										
25	Adults and Pediatrics (General) Routine Care										25
26	Intensive Care Unit										26
27	Coronary Care Unit										27
28											28
29											29
30											30
31	Subprovider I										31
32	Subprovider II										32
33	Nursery										33
34	Skilled Nursing Facility										34
35	Intermediate Care Facility										35

FORM HCFA-2553-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1514)

ALLOCATION OF CAPITAL-RELATED COSTS				PROVIDER NO.:		PERIOD: FROM TO				WORKSHEET B PART II (CONT.)	
COST CENTER DESCRIPTION	DIRECTLY ASSIGNED CAPITAL RELATED COSTS	CAPITAL RELATED COST BLDGS & FIXTURES	CAPITAL RELATED COST MOVABLE EQUIPMENT	CAP REL. COST TO BE ALLOCATED (COL. 0 - (COL. 2)	EMPLOYEE BENEFITS	ADMINISTRATIVE & GENERAL	MAINTENANCE & REPAIRS	OPERATION OF PLANT	LAUNDRY & LINEN SERVICE		
		1	2	2a	3	4	5	6	7		
36	Other Long Term Care										36
	ANCILLARY SERVICE COST CENTERS										
37	Operating Room										37
38	Recovery Room										38
39	Delivery Room and Labor Room										39
40	Anesthesiology										40
41	Radiology--Diagnostic										41
42	Radiology--Therapeutic										42
43	Radioisotope										43
44	Laboratory										44
45	PSP Clinical Lab Service-Program Only										45
46	Whole Blood and Packed Red Blood Cells										46
47	Blood Storing, Processing and Transfusing										47
48	Intravenous Therapy										48
49	Respiratory Therapy										49
50	Physical Therapy										50
51	Occupational Therapy										51
52	Speech Pathology										52
53	Electrocardiology										53
54	Electroencephalography										54
55	Medical Supplies Charged to Patients										55
56	Drugs Charged to Patients										56
57	Renal Dialysis										57
58											58
59											59
	OUTPATIENT SERVICE COST CENTERS										
60	Clinic										60
61	Emergency										61
62											62
	OTHER REIMBURSABLE COST CENTERS										
63	Home Program Dialysis										63
64	Ambulance Services										64
65	Durable Medical Equipment--Rented										65
66	Durable Medical Equipment--Sold										66
67											67
68											68

FORM HCFA-2553-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1514)

ALLOCATION OF CAPITAL-RELATED COSTS | PROVIDER NO.: | PERIOD: FROM ____ TO ____ | WORKSHEET B PART II (CONT.)

	COST CENTER DESCRIPTION	DIRECTLY ASSIGNED CAPITAL RELATED COSTS	CAPITAL RELATED COST BLDGS & FIXTURES	CAPITAL RELATED COST MOVABLE EQUIPMENT	CAP REL COST TO BE ALLOCATED (COL. 0 + COL. 2)	EMPLOYEE BENEFITS	ADMINISTRATIVE & GENERAL	MAINTENANCE & REPAIRS	OPERATION OF PLANT	LAUNDRY & LINEN SERVICE	
		0	1	2	2a	3	6	5	6	7	
69	Home Program Dialysis Equipment--100% Medicare										69
70	[illegible]--(not in approv. teaching progr.)										70
71	Administrative and General--SNA										71
72	Skilled Nursing Care--SNA										72
73	Physical Therapy--SNA										73
74	Occupational Therapy--SNA										74
75	Speech Pathology--SNA										75
76	Medical Social Services--SNA										76
77	Home Health Aide--SNA										77
78	Medical Appliances/DME-Rented--SNA										78
79	Medical Appliances/DME-Sold--SNA										79
80	Home Delivered Meals--SNA										80
81	Other Home Health Services--SNA										81
82	CORF										82
	SPECIAL PURPOSE COST CENTERS										
83	Kidney Acquisition										83
84	Liver Acquisition										84
85	Other Organ Acquisition										85
91	Ambulatory Surgical Center										91
92	Hospice										92
93											93
94											94
95	SUBTOTALS										95
	NONREIMBURSABLE COST CENTERS										
96	Gift, Flower, Coffee Shops and Canteen										96
97	Research										97
98	Physicians' Private Offices										98
99	NonPaid Workers										99
100											100
101	Cross Foot Adjustments										101
102	Negative Cost Center										102
103	TOTAL										103

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1514)

ALLOCATION OF CAPITAL-RELATED COSTS | PROVIDER NO.: | PERIOD: FROM ____ TO ____ | WORKSHEET B PART II (CONT.)

	COST CENTER DESCRIPTION	BOOKKEEPING	DIETARY	CAFETERIA	MAINTENANCE OF PERSONNEL	NURSING ADMINISTRATION	CENTRAL SERVICES & SUPPLY	PHARMACY	MEDICAL RECORDS & LIBRARY	SOCIAL SERVICE	
		8	9	10	11	12	13	14	15	16	
	GENERAL SERVICE COST CENTERS										
1	Capital-Related Costs--Buildings and Fixtures										1
2	Capital-Related Costs--Movable Equipment										2
3	Employee Benefits										3
4	Administrative and General										4
5	Maintenance and Repairs										5
6	Operation of Plant										6
7	Laundry and Linen Service										7
8	Housekeeping										8
9	Dietary										9
10	Cafeteria										10
11	Maintenance of Personnel										11
12	Nursing Administration										12
13	Central Services and Supply										13
14	Pharmacy										14
15	Medical Records and Library										15
16	Social Service										16
17											17
18											18
19											19
20	Nursing School										20
21	Intern-Res. Srvc--(in approved teaching program)										21
22	Paramedical Education Program (Specify)										22
23	Paramedical Education Program (Specify)										23
24	Paramedical Education Program (Specify)										24
	INPATIENT ROUTINE SERVICE COST CENTERS										
25	Adults and Pediatrics (General Routine Care)										25
26	Intensive Care Unit										26
27	Coronary Care Unit										27
28											28
29											29
30											30
31	Subprovider I										31
32	Subprovider II										32
33	Nursery										33
34	Skilled Nursing Facility										34
35	Intermediate Care Facility										35

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1514)

– ALLOCATION OF CAPITAL-RELATED COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET B PART II (CONT.)

	COST CENTER DESCRIPTION	BOOK-KEEPING 8	DIETARY 9	CAFETERIA 10	MAINTENANCE OF PERSONNEL 11	NURSING ADMINISTRATION 12	CENTRAL SERVICES & SUPPLY 13	PHARMACY 14	MEDICAL RECORDS & LIBRARY 15	SOCIAL SERVICE 16	
36	Other Long Term Care										36
	ANCILLARY SERVICE COST CENTERS										
37	Operating Room										37
38	Recovery Room										38
39	Delivery Room and Labor Room										39
40	Anesthesiology										40
41	Radiology--Diagnostic										41
42	Radiology--Therapeutic										42
43	Radioisotope										43
44	Laboratory										44
45	PRP Clinical Lab Service-Program Only										45
46	Whole Blood and Packed Red Blood Cells										46
47	Blood Storing, Processing and Transfusing										47
48	Intravenous Therapy										48
49	Respiratory Therapy										49
50	Physical Therapy										50
51	Occupational Therapy										51
52	Speech Pathology										52
53	Electrocardiology										53
54	Electroencephalography										54
55	Medical Supplies Charged to Patients										55
56	Drugs Charged to Patients										56
57	Renal Dialysis										57
58											58
59											59
	OUTPATIENT SERVICE COST CENTERS										
60	Clinic										60
61	Emergency										61
62											62
	OTHER REIMBURSABLE COST CENTERS										
63	Home Program Dialysis										63
64	Ambulance Services										64
65	Durable Medical Equipment--Rented										65
66	Durable Medical Equipment--Sold										66
67											67
68											68

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ALLOCATION OF CAPITAL-RELATED COSTS

PROVIDER NO.:

PERIOD: FROM TO

WORKSHEET B PART II (CONT.)

	COST CENTER DESCRIPTION	BOOK-KEEPING 8	DIETARY 9	CAFETERIA 10	MAINTENANCE OF PERSONNEL 11	NURSING ADMINISTRATION 12	CENTRAL SERVICES & SUPPLY 13	PHARMACY 14	MEDICAL RECORDS & LIBRARY 15	SOCIAL SERVICE 16	
69	Home Program Dialysis Equipment--100% Medicare										69
70	Intern-Res.Srvc--(not in approv. teaching progr.)										70
71	Administrative and General--HHA										71
72	Skilled Nursing Care--HHA										72
73	Physical Therapy--HHA										73
74	Occupational Therapy--HHA										74
75	Speech Pathology--HHA										75
76	Medical Social Services--HHA										76
77	Home Health Aide--HHA										77
78	Medical Appliances/DME-Rented--HHA										78
79	Medical Appliances/DME-Sold--HHA										79
80	Home Delivered Meals--HHA										80
81	Other Home Health Services--HHA										81
82	CORF										82
	SPECIAL PURPOSE COST CENTERS										
83	Kidney Acquisition										83
84	Liver Acquisition										84
85	Other Organ Acquisition										85
91	Ambulatory Surgical Center										91
92	Hospice										92
93											93
94											94
95	SUBTOTALS										95
	NONREIMBURSABLE COST CENTERS										
96	Gift, Flower, Coffee Shops and Canteen										96
97	Research										97
98	Physicians' Private Offices										98
99	NonPaid Workers										99
100											100
101	Cross Foot Adjustments										101
102	Negative Cost Center										102
103	TOTAL										103

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SEC. 1514)

ALLOCATION OF CAPITAL RELATED COSTS				PROVIDER NO.:		PERIOD: FROM / TO			WORKSHEET B PART II (CONT.)	
COST CENTER DESCRIPTION	17	18	19	NURSING SCHOOL 20	INTERNS & RESIDENTS (APPROVED) 21	PARAMEDICAL EDUCATION (SPECIFY) 22	PARAMEDICAL EDUCATION (SPECIFY) 23	PARAMEDICAL EDUCATION (SPECIFY) 24	TOTAL 25	
GENERAL SERVICE COST CENTERS										
1 Capital-Related Costs--Buildings and Fixtures										
2 Capital-Related Costs--Movable Equipment										
3 Employee Benefits										
4 Administration and General										
5 Maintenance and Repairs										
6 Operation of Plant										
7 Laundry and Linen Service										
8 Housekeeping										
9 Dietary										
10 Cafeteria										
11 Maintenance of Personnel										
12 Nursing Administration										
13 Central Services and Supply										
14 Pharmacy										
15 Medical Records and Library										
16 Social Service										
17										
18										
19										
20 Nursing School										
21 Intern-Res.Srvc--(Is an approved teaching prog.)										
22 Paramedical Education Program (Specify)										
23 Paramedical Education Program (Specify)										
24 Paramedical Education Program (Specify)										
INPATIENT ROUTINE SERVICE COST CENTERS										
25 Adults and Pediatrics (General Routine Care)										25
26 Intensive Care Unit										26
27 Coronary Care Unit										27
28										28
29										29
30										30
31 Subprovider I										31
32 Subprovider II										32
33 Nursery										33
34 Skilled Nursing Facility										34
35 Intermediate Care Facility										35

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ALLOCATION OF CAPITAL-RELATED COSTS				PROVIDER NO.:		PERIOD: FROM / TO			WORKSHEET B PART II (CONT.)	
COST CENTER DESCRIPTION	17	18	19	NURSING SCHOOL 20	INTERNS & RESIDENTS (APPROVED) 21	PARAMEDICAL EDUCATION (SPECIFY) 22	PARAMEDICAL EDUCATION (SPECIFY) 23	PARAMEDICAL EDUCATION (SPECIFY) 24	TOTAL 25	
36 Other Long Term Care										36
ANCILLARY SERVICE COST CENTERS										
37 Operating Room										37
38 Recovery Room										38
39 Delivery Room and Labor Room										39
40 Anesthesiology										40
41 Radiology--Diagnostic										41
42 Radiology--Therapeutic										42
43 Radioisotope										43
44 Laboratory										44
45 PSP Clinical Lab Service-Program Only										45
46 Whole Blood and Packed Red Blood Cells										46
47 Blood Storing, Processing and Transfusing										47
48 Intravenous Therapy										48
49 Respiratory Therapy										49
50 Physical Therapy										50
51 Occupational Therapy										51
52 Speech Pathology										52
53 Electrocardiology										53
54 Electroencephalography										54
55 Medical Supplies Charged to Patients										55
56 Drugs Charged to Patients										56
57 Renal Dialysis										57
58										58
59										59
OUTPATIENT SERVICE COST CENTERS										
60 Clinic										60
61 Emergency										61
62										62
OTHER REIMBURSABLE COST CENTERS										
63 Home Program Dialysis										63
64 Ambulance Services										64
65 Durable Medical Equipment--Rented										65
66 Durable Medical Equipment--Sold										66
67										67
68										68

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ALLOCATION OF CAPITAL-RELATED COSTS				PROVIDER NO.:		PERIOD: FROM / TO				WORKSHEET B PART II (CONT.)	
	COST CENTER DESCRIPTION				NURSING SCHOOL	INTERNS & RESIDENTS (APPROVED)	PARAMEDICAL EDUCATION (SPECIFY)	PARAMEDICAL EDUCATION (SPECIFY)	PARAMEDICAL EDUCATION (SPECIFY)	TOTAL	
		17	18	19	20	21	22	23	24	25	
69	Home Program Dialysis Equipment--100% Medicare										69
70	Intern-Res Srvc--(not in approv teaching prog)										70
71	Administrative and General--HHA										71
72	Skilled Nursing Care--HHA										72
73	Physical Therapy--HHA										73
74	Occupational Therapy--HHA										74
75	Speech Pathology--HHA										75
76	Medical Social Services--HHA										76
77	Home Health Aide--HHA										77
78	Medical Appliances/Incl-Rented--HHA										78
79	Medical Appliances/Incl-Sold--HHA										79
80	Home Delivered Meals--HHA										80
81	Other Home Health Services--HHA										81
82	CORF										82
	SPECIAL PURPOSE COST CENTERS										
83	Kidney Acquisition										83
84	Liver Acquisition										84
85	Other Organ Acquisition										85
91	Ambulatory Surgical Center										91
92	Hospice										92
93											93
94											94
95	SUBTOTALS										95
	NONREIMBURSABLE COST CENTERS										
96	Gift, Flower, Coffee Shops and Canteen										96
97	Research										97
98	Physicians' Private Offices										98
99	NonPaid Workers										99
100											100
101	Cross Foot Adjustments										101
102	Negative Cost Center										102
103	TOTAL										103

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INPATIENT COST APPORTIONMENT	PROVIDER NO.: / COMPONENT NO.:	PERIOD: FROM / TO	WORKSHEET D PART I
TITLE V / TITLE XVIII-PP A / TITLE XIX	HOSPITAL / SUB I / SUB II / SNF	ICF / S/D-SNF / S/D-ICF	PPS / TEFRA / OTHER

	COST CENTER DESCRIPTION	RATIO COST TO CHARGES	INPATIENT CHARGES	INPATIENT COSTS
		1	2	3
(A)	ANCILLARY COST CENTERS			
37	Operating Room			
38	Recovery Room			
39	Delivery Room and Labor Room			
40	Anesthesiology			
41	Radiology--Diagnostic			
42	Radiology--Therapeutic			
43	Radioisotope			
44	Laboratory			
45	PRP Clinic Lab Service--Progress Only			
46	Whole Blood and Packed Red Blood Cells			
47	Blood Storing, Processing & Transfusing			
48	Intravenous Therapy			
49	Respiratory Therapy			
50	Physical Therapy			
51	Occupational Therapy			
52	Speech Pathology			
53	Electrocardiology			
54	Electroencephalography			
55	Medical Supplies Charged to Patients			
56	Drugs Charged to Patients			
57	Renal Dialysis			
58				
59				
	OUTPATIENT CO.T CENTERS			
60	Clinic			
61	Emergency			
62				
	OTHER REIMBURS. COST CENTERS			
63	Home Program Dialysis			
64	Ambulance			
65	Durable Medical Equipment--Rented			
66	Durable Medical Equipment--Sold			
67				
68				
101	TOTAL (Lines 37-68)			
102	Less PRP Clinic Lab Svcs-Progress Only Charges (Line 45)			
103	Net Charges (Line 101 minus line 102)			

(A) Worksheet A Line Number

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CAPITAL RELATED COST APPORTIONMENT	PROVIDER NO.: / COMPONENT NO.:	PERIOD: FROM / TO	WORKSHEET D PART II
TITLE V / TITLE XVIII PART A / TITLE XIX	HOSPITAL SUB I / SUB II		PPS / TEFRA

	COST CENTER DESCRIPTION	CAPITAL RELATED COST	TOTAL CHARGES	RATIO COST TO CHARGES	INPATIENT PROGRAM CHARGES	INPATIENT PROGRAM COSTS
		1	2	3	4	5
(A)	ANCILLARY COST CENTERS					
37	Operating Room					
38	Recovery Room					
39	Delivery Room and Labor Room					
40	Anesthesiology					
41	Radiology--Diagnostic					
42	Radiology--Therapeutic					
43	Radioisotope					
44	Laboratory					
45	PRP Clin Lab Srvc-Prog Only					
46	Whl Bld & Pckd Rd Bld Cells					
47	Blood Strng,Process. & Transf.					
48	Intravenous Therapy					
49	Respiratory Therapy					
50	Physical Therapy					
51	Occupational Therapy					
52	Speech Pathology					
53	Electrocardiology					
54	Electroencephalography					
55	Med Supplies Chrgd to Patients					
56	Drugs Charged to Patients					
57	Renal Dialysis					
58						
59						
	OUTPATIENT COST CENTERS					
60	Clinic					
61	Emergency					
62						
	OTHER REIMBURS. COST CENTERS					
63	Home Program Dialysis					
64	Ambulance					
65	Durable Med Equipment--Rented					
66	Durable Med Equipment--Sold					
67						
68						
101	TOTAL (Lines 37-68)					

(A) Worksheet A Line Number

FORM HCFA-2552-84 (INSTRUCTIONS FOR THIS WORKSHEET ARE PUBLISHED IN HCFA PUB. 15-II, SECS. 1516 AND 1516.2)

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